USCG ADMINISTRATIVE RECORD INDEX

AMERICAN WATERWAYS OPERATORS V. U.S. COAST GUARD, CASE CIV. NO. No. 1:18-cv-12070

I. NOTICE OF ENVIRONMENTAL ASSESSMENT AND FONSI		
Bates Number	Document	Date
USCG 0001-02	77 Fed. Reg. 45991 Regulated Navigation Area; Buzzard's Bay, MA; Navigable Waterways Within the First Coast Guard District	08/02/2012
USCG 0003-04	Regulated Navigation Area: Buzzard's Bay, MA; Navigable Waterways Within the First Coast Guard District	02/26/2014
II. ENVIRONMENTAL ASSESSMENT		
Bates Number	Document	Date
USCG 0005-100	Draft Environmental Assessment for Implementation of Revisions to the RNA Governing Maritime Transport of Petroleum Products and Other Hazardous Materials on Buzzards Bay, Massachusetts	07/18/2012
USCG 0101-231	Final Environmental Assessment for Amendments to the Regulated Navigation Area Requirements in Effect for Buzzards Bay Prior to 2007	02/03/2014
USCG 0232-34	Notice of availability of Final Environmental Assessment (EA) and Finding of No Significant Impact	02/04/2014
III. PUBLIC COMMENTS FOR ENVIRONMENTAL ASSESSMENT		
Bates Number	Document	Date
USCG 0235	Comments from David Russell Ellis	08/07/2012
USCG 0236	Comments from Emily L. Ferguson	08/31/2012
USCG 0237	Comments from John Henry Harwood	09/04/2012
USCG 0238-39	Comments from Kirby Offshore Marine, LLC	09/04/2012
USCG 0240-41	Comments from American Waterways Operators	09/04/2012
USCG 0242	Comments from Richard Anthony Caruso	09/04/2012
USCG 0243	Comments from Diana M. Prince	09/04/2012
USCG 0244	Comments from Joseph Myerson	09/04/2012
USCG 0245	Comments from Jay Carlisle Smith	09/04/2012
USCG 0246	Comments from Edward B. Baker	09/04/2012
USCG 0247-639	Comments from Buzzards Bay Coalition	09/04/2012
USCG 0640	Comments from Tom Gidwitz	09/04/2012
USCG 0641	Comments from Lorene Anne Sweeney	09/04/2012
USCG 0642	Comments from Weston V. Cantor	09/04/2012
USCG 0643	Comments from Suzanne Kuffler	09/04/2012

USCG 0644	Comments from Mark Bourne	09/04/2012
USCG 0645-955	Comments from Office of the Attorney General, Commonwealth of Massachusetts	09/05/2012
USCG 0956-57	Comments from Therese Murray, President, Massachusetts Senate	09/05/2012
USCG 0958	Comments from Christopher M. Markey	09/05/2012
USCG 0959-60	Comments from the Honorable Barney Frank and Bill Keating	09/05/2012
USCG 0961	Comments from Anonymous	09/05/2012
USCG 0962-67	Comments from Commonwealth of Massachusetts, Department of Environmental Protection	09/05/2012
USCG 0968-69	Comments from Commonwealth of Massachusetts, Division of Fisheries & Wildlife	09/06/2012
USCG 0970-94	Comments from Petition Signers	09/07/2012
USCG 0995-96	Comments from Robert M. Koczera	09/11/2012
USCG 0997-98	Comments from Commonwealth of Massachusetts, Division of Marine Fisheries	09/12/2012
USCG 0999-1000	Comments from the Honorable Timothy R. Madden	09/14/2012
USCG 1001-02	Comments from the Honorable Mark Montigny	09/20/2012
USCG 1003	Comments from the Honorable John F. Kerry	09/27/2012
USCG 1004-05	Comments from the Honorable F.D. Cabral	10/04/2012
USCG 1006	Comments from Anonymous	10/25/2013
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IV. ADVANCED NOTICE OF PROPOSED RULEMAKING

Bates Number	Document	Date
USCG 1222-25	78 Fed. Reg. 40651 Regulated Navigation Area; Special Buzzards Bay Vessel Regulation, Buzzards Bay, MA	07/08/2013
USCG 1226-27	78 Fed. Reg. 59902 Regulated Navigation Area; Special Buzzards Bay Vessel Regulation, Buzzards Bay, MA	09/30/2013

V. DATA FOR 78 FED. REG. 40651

Bates Number	Document	Date
USCG 1228-343	Buzzard's Bay Risk Assessment	01/22/2013
USCG 1344-1419	Technical Peer Review of the Buzzards Bay Risk Assessment	10/24/2013

VI. PUBLIC COMMENTS FOR 78 FED. REG. 40651

Bates Number	Document	Date Posted
USCG 1420-21	Comments from Buzzards Bay Coalition	09/03/2013
USCG 1422	Comments from Jessica Anonymous	09/23/2013
USCG 1423-25	Comments from Massachusetts Department of Environmental Protection	09/23/2013
USCG 1426	Comments from William Griffiths	09/23/2013

USCG 1427	Comments from CJ Loomis	09/23/2013
USCG 1428-29	Comments from Gary Oliveira	10/03/2013
USCG 1430-31	Comments from Thomas L. Bushy	10/04/2013
USCG 1432-1503	Comments from Petition Signers	10/10/2013
USCG 1504	Comments from Anonymous	12/04/2013
USCG 1505-06	Comments from Town of Dartmouth	12/04/2013
USCG 1507-08	Comments from Senator Therese Murray	12/04/2013
USCG 1509	Comment from Jonathan Talamo	12/04/2013
USCG 1510	Comments from Jennifer J. Sylvia	12/04/2013
USCG 1511-13	Comments from Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs, Office of Coastal Zone Management	12/04/2013
USCG 1514	Comments from Donald Rudnick	12/04/2013
USCG 1515	Comments from Jonathan F. Mitchell, Mayor of the City of New Bedford	12/04/2013
USCG 1516	Comments from Nancy Jordan	12/04/2013
USCG 1517-18	Comments from Senator Michael J. Rodrigues	12/04/2013
USCG 1519	Comments from Sarah Brownell	12/04/2013
USCG 1520	Comments from Don Burton	12/04/2013
USCG 1521-639	Comments from Buzzards Bay Coalition	12/04/2013
USCG 1640-41	Comments from Town of Westport	12/04/2013
USCG 1642	Comments from Hugh Blair-Smith	12/04/2013
USCG 1643	Comments from Anonymous	12/04/2013
USCG 1644-45	Comments from Senator Mark Montigny	12/04/2013
USCG 1646-47	Comments from Representative Susan W. Gifford	12/04/2013
USCG 1648	Comments from Harold Burstyn	12/04/2013
USCG 1649-54	Comments from American Waterways Operators	12/09/2013
USCG 1655-56	Comments from Town of Fairhaven	12/09/2013
USCG 1657	Comments from Anonymous	12/09/2013
USCG 1658	Comments from Anonymous	12/09/2013
USCG 1659-61	Comments from the Honorable Elizabeth Warren, Edward Markey, and Bill Keating	12/09/2013
USCG 1662	Comments from the Honorable Timothy R. Madden	12/09/2013
USCG 1663-70	Comments from State of Massachusetts District Three Full Branch & Warrant Pilots	12/09/2013
USCG 1671-72	Comments from the Town of Marion	12/09/2013
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USCG 1674-758	Comments from the Commonwealth of Massachusetts, Department of Environmental Protection	12/09/2013
USCG 1759	Comments from Captain E. Howard McVay, Jr.	12/09/2013
USCG 1760-61	Comments from the Town of Mattapoisett	12/09/2013
USCG 1762-63	Comments from the Honorable Antonio Cabral	12/09/2013

USCG 1764-65	Comments from the Honorable William Straus	12/09/2013
USCG 1766-67	Comments from the Town of Fairhaven	12/13/2013
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USCG 1770-71	Comments from the Town of Gosnold	12/13/2013

VII. MEETINGS

Bates Number	Document	Date
USCG 1721-22	Invitation to Attend Buzzards Bay Conditional Escort Tug Workgroup Meeting [PII redacted]	07/16/2013
USCG 1723-29	Presentation for Buzzards Bay Risk Assessment Peer Review Group Meeting	08/05/2013
USCG 1730-35	Buzzards Bay Conditional Escort Tug Workgroup Meeting Summary	08/14/2013
USCG 1736	News Release: Coast Guard announces Ports and Waterways Safety Assessment on Buzzards Bay, seeks participants	12/07/2017
USCG 1737-53	Ports & Waterways Safety Assessment (PAWSA) Public Information Webinar Slideshow	01/10/2018
USCG 1754-90	Buzzards Bay Ports and Waterways Safety Assessment Attendee Letter and Read-ahead Package [PII redacted]	01/12/2018
USCG 1791-92	Buzzards Bay Ports and Waterways Safety Assessment Introductory Remarks	02/07/2018
USCG 1793-834	Ports and Waterways Safety Assessment Day 1 Slideshow	02/07/2018
USCG 1835-49	Ports and Waterways Safety Assessment Day 2 Slideshow	02/08/2018
USCG 1850-53	Buzzards Bay Ports and Waterways Safety Assessment 7-8 February 2018 Attendance List	02/07/2018, 02/08/2018
USCG 1854-61	Sector Southeastern New England Port Safety & Security Forum Buzzards Bay Presentation	11/06/2018

VIII. REPORTS

Bates Number	Document	Date
USCG 1862-905	Ports and Waterways Safety Assessment Report	06/01/2018

IX. MISCELLANEOUS

Bates Number	Document	Date
USCG 1906-2000	Annual Massachusetts Department of Environmental Protection MOSPRA Reports 2011, 2012, 2013, 2014, and 2015	Various
USCG 2001-03	Buzzards Bay Preemption Discussion Pre-Brief [Deliberative Process Material Redacted]	07/24/2017
USCG 2004	Marine Casualties in Buzzards Bay 2012-18	02/07/2018
USCG 2005-07	Post-PWSA Workshop Presentation	02/14/2018
USCG 2008-36	Buzzards Bay Escort Tug Assists 2011-16	02/28/2018

USCG 2037-38	Letter to CAPT Byron Black from Brian Vahey, Senior Manager of AWO Atlantic Region [PII redacted]	05/06/2018
USCG 2039	Letter to Brian Vahey from CAPT Black [PII redacted]	05/07/2018
USCG 2040-41	Buzzards Bay Courses of Action White Paper [Deliberative Process Material Redacted]	05/08/2018
USCG 2042-43	Letter to CAPT Byron Black from Brian Vahey, Senior Manager of AWO Atlantic Region [PII redacted]	05/30/2018
USCG 2044	Letter to Brian Vahey from CDR Kistner [PII redacted]	05/31/2018
USCG 2045-54	District 1 Way Ahead Presentation for Buzzards Bay [Deliberative Process Material Redacted]	09/07/2018
USCG 2055-56	Letter from Senators Elizabeth Warren, Edward Markey, and Congressman William Keating to ADM Paul Zukunft	02/05/2015
USCG 2057-59	Letter from State Representative Timothy Madden to ADM Paul Zukunft	02/06/2015
USCG 2060	Email from RADM Steven Poulin to RDML Steven Anderson	07/29/2016
USCG 2061-62	Email from RDML Steven Anderson to GS15 Brian Judge and CAPT Shannon Gilreath	02/16/2017
USCG 2063-64	Email from GS15 Brian Judge to RDML Steven Anderson	03/23/2017
USCG 2065-66	Email from RDML Steven Anderson to ADM Charles Michel	07/13/2017
USCG 2067-69	Email from GS15 Brian Judge to RDML Steven Anderson	07/26/2017
USCG 2070	Digest to CCG Detailing PAWSA Plans	10/02/17
USCG 2071-73	Email from RDML Steven Anderson to GS15 Brian Judge and CAPT Shannon Gilreath	10/04/2018
USCG 2074-78	Email from RDML Steven Anderson to GS15 Brian Judge and CAPT Shannon Gilreath	10/23/2017
USCG 2079	Email from RDML Steven Anderson to RADM Steven Poulin, GS15 Brian Judge, CIV Bronwyn Douglass, and CIV Katia Kroutil [Deliberative Process Material Redacted]	11/30/2017
USCG 2080-81	Letter from Representative Bennie Thompson to ADM Karl Schultz	12/20/2018
USCG 2082	Letter from LCDR Taylor Kellogg to Representative Bennie Thompson	03/07/2019

Bethesda, MD 20892–7616, 301–496–2550, *mendezs@niaid.nih.gov.*

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

Name of Committee: National Institute of Allergy and Infectious Diseases Special Emphasis Panel, Sexually Transmitted Infections Cooperative Research Centers (STI CRC) (U19).

Date: March 17–18, 2014.

Time: 8:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: Hilton Washington/Rockville, 1750 Rockville Pike, Rockville, MD 20852.

Contact Person: Maryam Feili-Hariri, Ph.D., Scientific Review Officer, Scientific Review Program, Division of Extramural Activities, National Institutes of Health/NIAID, 6700B Rockledge Drive, MSC 7616, Bethesda, MD 20892–7616, 301–594–3243, *haririmf@niaid.nih.gov.*

Name of Committee: National Institute of Allergy and Infectious Diseases Special Emphasis Panel, NIAID Peer Review.

Date: March 18, 2014.

Time: 1:00 p.m. to 5:30 p.m.

Agenda: To review and evaluate contract proposals.

Place: National Institutes of Health, Room 3201B, 6700B Rockledge Drive, Bethesda, MD 20817, (Telephone Conference Call).

Contact Person: Travis J Taylor, Ph.D., Scientific Review Program, DEA/NIAID/NIH/DHHS, 6700–B Rockledge, Dr. MSC–7616, Bethesda, MD 20892–7616, 301–496–2550, *Travis.Taylor@nih.gov.*

Name of Committee: National Institute of Allergy and Infectious Diseases Special Emphasis Panel, NIAID Investigator Initiated Program Project Applications (PO1).

Date: March 20, 2014.

Time: 1:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Room 3254, 6700B Rockledge Drive, Bethesda, MD 20817, (Telephone Conference Call).

Contact Person: Susana Mendez, Ph.D., DVM, Scientific Review Officer, Scientific Review Program, DEA/NIAID/NIH/DHHS, 6700B Rockledge Drive, MSC–7616, Bethesda, MD 20892–7616, 301–496–2550, *mendezs@niaid.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.855, Allergy, Immunology, and Transplantation Research; 93.856, Microbiology and Infectious Diseases Research, National Institutes of Health, HHS)

Dated: February 20, 2014.

David Clary,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2014–04081 Filed 2–25–14; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Center for Scientific Review; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Center for Scientific Review Special Emphasis Panel; PAR Panel: Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival.

Date: February 27, 2014.

Time: 3:00 p.m. to 5:00 PM.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892, (Virtual Meeting).

Contact Person: Denise Wiesch, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 3138, MSC 7770, Bethesda, MD 20892, (301) 437–3478, *wieschd@csr.nih.gov.*

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

Name of Committee: Center for Scientific Review Special Emphasis Panel; PAR 13–109: Mechanistic Insights from Birth Cohorts.

Date: February 28, 2014.

Time: 12:00 p.m. to 5:30 PM.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892, (Virtual Meeting).

Contact Person: Fungai Chanetsa, MPH, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 3135, MSC 7770, Bethesda, MD 20892, 301–408–9436, *fungai.chanetsa@nih.hhs.gov.*

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

Name of Committee: Center for Scientific Review Special Emphasis Panel; Drug Discovery and Molecular Pharmacology.

Date: March 4, 2014.

Time: 1:00 p.m. to 2:00 PM.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892 (Telephone Conference Call).

Contact Person: Jeffrey Smiley, Ph.D., Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 6194, MSC 7804, Bethesda, MD 20892, 301–594–7945, *smileyja@csr.nih.gov.*

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

(Catalogue of Federal Domestic Assistance Program Nos. 93.306, Comparative Medicine; 93.333, Clinical Research, 93.306, 93.333, 93.337, 93.393–93.396, 93.837–93.844, 93.846–93.878, 93.892, 93.893, National Institutes of Health, HHS)

Dated: February 20, 2014.

Carolyn A. Baum,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2014–04079 Filed 2–25–14; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[USCG–2012–0632]

RIN 1625–AA11

Regulated Navigation Area: Buzzard's Bay, MA; Navigable Waterways Within the First Coast Guard District

AGENCY: Coast Guard, DHS.

ACTION: Notice of Availability.

SUMMARY: The Coast Guard is issuing this notice to advise the public that we have prepared a Finding of No Significant Impact (FONSI) based on the Final Environmental Assessment (Final EA) for the amendments to the Buzzards Bay Regulated Navigation Area that were implemented in 2007. The Coast Guard prepared the Final EA, dated December 2013, in accordance with the National Environmental Policy Act (NEPA) and the Coast Guard's Agency procedures for implementing NEPA.

DATES: The FONSI and Final EA are available as of the publication date of this notice.

FOR FURTHER INFORMATION CONTACT: Mr. John Mauro, Coast Guard First District Waterways Management Branch, telephone 617–223–8355, email *John.J.Mauro@uscg.mil* or Mr. Luke Dlhopolsky, Civil Engineering Unit, Environmental Protection Specialist, telephone 401–736–1743, email *Lucas.A.Dlhopolsky@uscg.mil.*

SUPPLEMENTARY INFORMATION: The Final EA evaluates the existing Regulated Navigation Area (RNA) applicable to First Coast Guard District waters as it was amended in 2007 (the ''2007 Final Rule'') (72 FR 50052; corrected by 72 FR 70780). The purpose of those amendments was to enhance the pre-2007 RNA by adding measures intended to further reduce the probability of an incident that could result in the discharge or release of oil or hazardous material, or cause serious harm, to navigable waters of the United States. As part of the process to implement the 2007 Final Rule, the USCG prepared a Categorical Exclusion Determination as defined in its Agency Procedures for Implementing the National Environmental Policy Act. In a ruling on May 17, 2011, the 1st U.S. Circuit Court of Appeals determined that the USCG ''failed to comply with its obligations under the National Environmental Policy Act'' when it failed to prepare an Environmental Impact Statement (EIS) or an Environmental Assessment (EA). This Final EA is intended to remedy that insufficiency.

Dated: February 4, 2014.

D.B. Abel,

Rear Admiral, U.S. Coast Guard, Commander, First Coast Guard District.

[FR Doc. 2014–04176 Filed 2–25–14; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–5759–N–05]

60-Day Notice of Proposed Information Collection: Promise Zones

AGENCY: Office of the Assistant Secretary for Public and Indian Housing, HUD

ACTION: Notice.

SUMMARY: HUD is seeking approval from the Office of Management and Budget (OMB) for the information collection described below. In accordance with the Paperwork Reduction Act, HUD is requesting comment from all interested parties on the proposed collection of information. The purpose of this notice is to allow for 60 days of public comment.

DATES: *Comments Due Date:* April 28, 2014.

ADDRESSES: Interested persons are invited to submit comments regarding this proposal. Comments should refer to the proposal by name and/or OMB Control Number and should be sent to: Colette Pollard, Reports Management Officer, QDAM, Department of Housing and Urban Development, 451 7th Street SW., Room 4176, Washington, DC 20410–5000; telephone 202–402–5564 (this is not a toll-free number) or email at *Colette.Pollard@hud.gov* for a copy of the proposed forms or other available information. Persons with hearing or speech impairments may access this number through TTY by calling the toll-free Federal Relay Service at (800) 877–8339.

FOR FURTHER INFORMATION CONTACT: Arlette Mussington, Office of Policy, Programs and Legislative Initiatives, PIH, Department of Housing and Urban Development, 451 7th Street SW., (L'Enfant Plaza, Room 2206), Washington, DC 20410; telephone 202–402–4109. This is not a toll-free number. Persons with hearing or speech impairments may access this number through TTY by calling the toll-free Federal Relay Service at (800) 877–8339. Copies of available documents submitted to OMB may be obtained from Ms. Mussington.

SUPPLEMENTARY INFORMATION: This notice informs the public that HUD is seeking approval from OMB for the information collection described in Section A.

A. Overview of Information Collection

Title of Information Collection: Promise Zones.

OMB Approval Number: 2577–0279.

Type of Request: Revision of a currently approved collection.

Form Number: Pending Assignment.

Description of the need for the information and proposed use: Under the Promise Zones initiative, the federal government will invest and partner with high-poverty urban, rural, and tribal communities to create jobs, increase economic activity, improve educational opportunities, leverage private investment, and reduce violent crime. Additional information about the Promise Zones initiative can be found at *www.hud.gov/promisezones*, and questions can be addressed to *promisezones@hud.gov*. This notice estimates burden for applying for the designation.

Respondents (i.e. affected public): Local or Tribal Governments.

Information collection	Number of respondents	Frequency of response	Responses per annum	Burden hour per response	Annual burden hours	Hourly cost per response	Annual cost
Abstract	300	1	1	3	900	$40	$36,000
Qualifying Criteria/Need Narrative	300	1	1	3	900	40	36,000
Local leadership support—Documentation	300	1	1	4	1200	40	48,000
Need—Poverty rate	300	1	1	1	300	40	12,000
Need—Crime rate	300	1	1	3	900	40	36,000
Need—Employment rate	300	1	1	1	300	40	12,000
Need—Vacancy rate	300	1	1	1	300	40	12,000
Strategy—Community Assets and Neighborhood Position, Mapping	300	1	1	6	1800	40	72,000
Strategy—Narrative and Template	300	1	1	10	3000	40	120,000
Strategy—Sustainability and financial feasibility	300	1	1	5	1500	40	60,000
Capacity—Lead documentation	300	1	1	3	900	40	36,000
Capacity—Partner documentation	300	1	1	4	1200	40	48,000

UNITED STATES COAST GUARD

FINAL ENVIRONMENTAL ASSESSMENT FOR AMENDMENTS TO THE REGULATED NAVIGATION AREA (RNA) REQUIREMENTS IN EFECT ON BUZZARDS BAY PRIOR TO 2007

This environmental assessment was prepared in accordance with the U.S. Coast Guard National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, Commandant's Manual Instruction M16475.1D and DHS Environmental Planning Program Directive 023.1. It also complies with the National Environmental Policy Act of 1969 (P.L. 91-190) and the Council of Environmental Quality Regulations dated 28 November 1978 (40 CFR Parts 1500-1508).

This environmental assessment serves as a concise public document to briefly provide sufficient evidence and analysis for determining the need to prepare an environmental impact statement or a finding of no significant impact.

This environmental assessment concisely describes the action that was proposed in 2007, the need for the proposal at that time, the alternatives, and the environmental impacts of the proposal and alternatives. This environmental assessment also contains a comparative analysis of the action and alternatives as they were defined in 2007, a statement of the environmental significance of the preferred alternative, and a list of the agencies and persons consulted during EA preparation.

11/15/2013	John Mauro	Chief, Waterways Management Branch
Date	Preparer	First Coast Guard District Title/Position
11/15/2013	Lucas A. Dlhopolsky	Environmental Protection Specialist
Date	Environmental Reviewer	CEU Providence Title/Position

In reaching my decision/recommendation on the USCG's proposed action, I have considered the information contained in this EA on the potential for environmental impacts.

3 FEB 14	D.B. ABEL	Commander, First Coast Guard District
Date	Responsible Official	Title/Position

UNITED STATES COAST GUARD

FINDING OF NO SIGNIFICANT IMPACT
FOR
AMENDMENTS TO THE REGULATED NAVIGATION AREA REQUIREMENTS IN EFECT ON BUZZARDS BAY PRIOR TO 2007

In response to a significant oil spill off the coast of Rhode Island in 1996 the U.S. Coast Guard (USCG) chartered a Regional Risk Assessment Team (RRAT) comprised of government, commercial, and environmental entities, to examine navigation safety issues within New England waters. Based on RRAT recommendations, the USCG implemented a Regulated Navigation Area (RNA) that same year to impose certain requirements on single hull tank barges transiting New England waters, including Buzzards Bay. This RNA was in effect and unchanged from 1996 to 2007.

Following a subsequent oil spill in 2003, the Coast Guard initiated a Ports and Waterways Safety Assessment (PAWSA), the findings of which were considered in developing alternatives for the 2007 amendments to the 1996 RNA. The purpose of these amendments was to further reduce the probability of an incident that could result in the discharge or release of oil or other hazardous material, or cause serious harm, to navigable waters of the United States (including Buzzards Bay, an "Estuary of National Significance").

As part of the 2007 regulatory action, the Coast Guard prepared a Categorical Exclusion Determination (CED) to document its analysis of the proposed and final regulation changes under the requirements of the National Environmental Policy Act (NEPA). During a subsequent related court action in 2011, the U. S. Court of Appeals for the First Circuit found that the CED provided insufficient analysis and documentation for implementation of the 2007 RNA amendment regulations. Therefore, in 2013 the Coast Guard prepared a draft Environmental Assessment (EA), including invitation for public comment, for the purpose of correcting the technical NEPA documentation deficiency noted by the Court.

Alternatives described in the EA for the 2007 amendments were designed to be consistent with the mandates of the Ports and Waterways Safety Act of 1972 (PWSA) which declared that "increased supervision of vessel and port operations is necessary in order to…reduce the possibility of vessel or cargo loss, or damage to life, property, or the marine environment; and to ensure that vessels operating in the navigable waters of the United States shall comply with all applicable standards and requirements for vessel construction, equipment, manning and operational procedures."

In keeping with the goals of the PWSA, the Coast Guard selected the alternative which it determined would produce the greatest reduction in the risk of a release of hazardous cargo to Buzzards Bay through the measured use of operational controls and increased tank vessel structural integrity. Under the preferred alternative ("3a" in the EA) the operational risk reduction measures included use of federal pilots on the primary vessel towing certain single hull barges, increased inter-vessel radio communication, written voyage plans and recommended

vessel travel routes. In recognition of the higher potential for a given marine casualty to compromise the structural integrity of a single hull tank vessel and result in release of product, the selected alternative included the requirement for a second towing vessel escort to assist the primary towing vessel pushing/pulling a single hulled barge laden with oil or other hazardous material. The Coast Guard's assessment in 2007 indicated that because of the significantly decreased likelihood of a breach of both hulls of a double hull vessel as compared to the risk to the structural integrity of a single hull vessel, such escort was not necessary to achieve an equivalent measure of safety to the environment when a double hull laden barge was in use.

This action has been thoroughly reviewed by the USCG and it has been determined, by the undersigned, that the navigation safety requirements described in the Coast Guard's preferred alternative in 2007 would not have significant effects on the human environment. Impacts of the action on land use, air quality, noise, geophysical setting, water resources, biological resources (including locally sensitive endangered or threatened species and their habitat), historic and cultural resources, socioeconomics, environmental justice, infrastructure and hazardous materials have been evaluated and no significant effects were found.

This finding of no significant impact is based on the attached USCG prepared environmental assessment, which has been determined to adequately and accurately discuss the environmental issues and impacts of the action as proposed in 2007 and provides sufficient evidence and analysis for determining that an environmental impact statement is not required.

This FONSI does not apply to changes to the 2007 RNA that may be proposed as a result of the 2012 joint U.S. Coast Guard/Massachusetts DEP technical risk study and evaluation of measures that may further enhance the reduction in oil spill potential on Buzzards Bay and the Cape Cod Canal. Instead, such future amendment action would be subject to separate NEPA environmental analysis and documentation.

Lucas A. Dlhopolsky

11/15/2013	Lucas A. Dlhopolsky	Environmental Protection Specialist CEU Providence
Date	Environmental Reviewer	Title/Position

I have considered the information contained in the EA, which is the basis for this FONSI. Based on the information in the EA and this FONSI document, I agree that the proposed action as described above, and in the EA, will have no significant impact on the environment.

D.B. Abel

3 FEB 14		Commander, First Coast Guard District
Date	Responsible Official	Title/Position

Final Environmental Assessment
For Implementation of Revisions to the Pre-2007 Regulated Navigation Area (RNA) Governing Maritime Transport of Petroleum Products and Other Hazardous Materials on Buzzards Bay, Massachusetts

December 2013

Prepared by:

United States Coast Guard

First Coast Guard District, Waterways Management Branch
And
U.S. Coast Guard Civil Engineering Unit, Providence

Based on the Draft EA Prepared by:

ARCADIS MALCOLM PIRNIE
Infrastructure · Water · Environment · Buildings

EXECUTIVE SUMMARY

This Environmental Assessment has been prepared in accordance with the National Environmental Policy Act (NEPA) (42 United States Code (USC) §§4321 et. seq.); Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 Code of Federal Regulations (CFR) §§1500-1508) and associated CEQ guidelines; Department of Homeland Security Management Directive MD-023.1, Environmental Planning Program; and U.S. Coast Guard Commandant Instruction (COMDTINST) M16475.1D, National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts.

A draft version of this Environmental Assessment (EA) was prepared and made available to the public for comment. This was accomplished either by direct individual mailing of a copy of the draft to known interested parties or by making the draft accessible by the general public through local community libraries and electronically through the Federal Register Docket. Appendix C to this document contains the list of addresses utilized for this purpose. In response to the invitation to comment, approximately 31 commenters responded. Two of these responses contained multiple signatures under a responder generated summary of the action being analyzed for environmental impacts. All the comments submitted were pooled into a list of sixty-eight statements which were then grouped into categories for response. The resulting thirty-six responses to comments are provided in Appendix D to this document. Discussions from the draft EA have been clarified or enhanced in the text of this final EA document, as appropriate, based in part upon the comments received.

ES-1 Purpose and Need

In 1985 the U.S. Congress designated Buzzards Bay as an “Estuary of National Significance;” it is also a component of the Massachusetts-designated “Cape and Islands Ocean Sanctuary” and contains some of Massachusetts’ most productive shellfish beds. In 2010, approximately 7,000 commercial vessel transits occurred in Buzzards Bay; of which 495 were vessels (38 single hulls) laden with 5,000 or more barrels of petroleum or other hazardous material. Since 1969 there have been five incidents of tank barge groundings with oil spills in Buzzards Bay that have had an adverse impact on people, property, the coast and maritime environment, and the local economy.

Subsequent to an oil spill from the tank barge North Cape off of Point Judith, Rhode Island in 1996, the U.S. Coast Guard implemented a Regulated Navigation Area (RNA) that imposed certain requirements on single hull tank barges transiting New England waters, including Buzzards Bay (33 Code of Federal Regulations [CFR] 165.100).

Following another oil spill on Buzzards Bay in 2003, the Commonwealth of Massachusetts passed the Massachusetts Oil Spill Prevention and Response Act (MOSPRA), which was last amended in 2004. The intent of MOSPRA was to strengthen several statutes that govern the Commonwealth’s ability to prevent and respond to oil spills on its coastal waters. However, as noted in two U.S. Supreme Court cases (1978 and 2000), certain regulations issued pursuant to the Ports and Waterways Safety Act of 1972, as amended, are reserved exclusively to the Coast Guard, and that state regulation in these areas is preempted. Therefore, the United States filed suit against Massachusetts in 2005 alleging that certain provisions of MOSPRA are preempted by this federal law.

In 2007 the U.S. Coast Guard published a Final Rule (2007 Final Rule) to implement amendments to the Regulated Navigation Area (RNA) applicable to First Coast Guard District waters that had been in effect since 1996. The purpose of these navigation safety and waterways management regulations for Buzzards Bay was to reduce the likelihood of another incident that might result in the discharge or release of oil or hazardous material, or other serious harm, on the navigable waters of the

United States. (Final Rule CGD01-04-133 November 28, 2007). The 2007 amendments were consistent with the mandates of the Ports and Waterways Safety Act which declared that "increased supervision of vessel and port operations is necessary in order to...reduce the possibility of vessel or cargo loss, or damage to life, property, or the marine environment; and to ensure that vessels operating in the navigable waters of the United States shall comply with all applicable standards and requirements for vessel construction, equipment, manning and operational procedures." As part of the process to implement the federal amendments Final Rule in 2007, the U.S. Coast Guard prepared a Categorical Exclusion Determination as defined in its Agency Procedures for Implementing the National Environmental Policy Act.

However, in a ruling on May 17, 2011, the U.S. Court of Appeals for the First Circuit disagreed with the Coast Guard's use of one of its Agency NEPA categorical exclusions for the 2007 RNA action and in so doing determined that the U.S. Coast Guard "failed to comply with its obligations under the National Environmental Policy Act" when it chose not to prepare an Environmental Impact Statement (EIS) or an Environmental Assessment (EA). The court did not address the federal/state law preemption issue.

This Environmental Assessment was written in order to remedy the shortcoming identified in the Court's finding by providing a complete and objective analysis of the impacts of the Buzzards Bay RNA amendments that were implemented in 2007. It does not address any proposed changes to the Buzzards Bay Regulated Navigation Area regulations that have been in effect since 2007 and to the greatest extent possible considers only those facts that were available at the time the 2007 amendments were being written.

It was extremely challenging to develop an assessment in 2013 that reflects historical conditions as they existed in 2007 because doing so requires one to ignore subsequent and current realities. Since the original RNA was published in 2007, there have been additional real-world developments and occurrences. Today we are aware of information that was not available in 2007. If we were developing an EA as of today, we would consider all relevant information available as of today. However, our task, as directed by the Court, was to correct the deficiency in the NEPA process for the 2007 RNA in order to complete the 2007 rulemaking. To complete that task required consideration of the world as it was in 2007, not as it is today. This requirement introduced an artificiality that makes temporal separation of the issues confusing and difficult. We have done our best throughout this EA to balance information from the latest relevant studies and data (so as to paint as accurate a picture as possible in describing Buzzards Bay) with the reality that no dispositive post-2007 information should be included in the analysis. We ask the audience to keep that artificiality in mind in reviewing this EA. The Coast Guard is currently, as of December 2013, undertaking a new rulemaking project for Buzzards Bay that will include consideration of all relevant available environmental information.

This final EA analyzes the 2007 amendments and alternatives in greater depth and detail than was conducted in the previously prepared Categorical Exclusion Determination. This document compares the reasonable alternative amendment scenarios (Alternatives 2 through 5) against the baseline of the RNA that was in effect prior to 2007 (The "No Action" Alternative 1) and identifies the preferred alternative (Alternative 3a - the amendments published in the 2007 Final Rule) which was expected at that time to produce the greatest reduction in the risk of a release of hazardous cargo to Buzzards Bay through the measured use of operational controls and increased tank vessel structural integrity.

At the same time this Environmental Assessment for the 2007 RNA amendments was being written in 2012-2013, the U.S. Coast Guard and Mass DEP contracted for a technical risk study and evaluation of measures that may reduce the level of potential risk of an oil spill in Buzzards Bay and the Cape Cod Canal even further than was intended by the 2007 RNA amendments.

That report evaluates the risk reduction benefits and any associated environmental, economic, or other quantitative or qualitative costs of the use of marine pilots and tugboat escorts for all towing vessels with laden tank barges, regardless of whether they are single-hulled or double-hulled, by addressing:

- Analysis of oil spill probabilities from double-hull tank barges
- Analysis of potential consequences of oil spills
- Evaluation of risk mitigation costs and benefits associated with a requirement for federally-licensed pilots
- Evaluation of risk mitigation costs and benefits associated with a requirement for escort vessels.

The Coast Guard and the Commonwealth are currently working together to examine the current regulatory regime and evaluate the need for changes that could improve navigation safety through operational and structural measures that would enhance protection of the Buzzards Bay environment.

ES-2 Alternatives Considered in this EA

Five primary alternatives are considered in this EA. Alternative 1 is a no action alternative in which navigation in Buzzards Bay would follow the U.S. Coast Guard regulations that were in effect prior to the promulgation of the August 30, 2007 Final Rule amending the Regulated Navigation Area (RNA). Table ES-1 lists the alternatives and their components.

Table ES-1. Alternatives

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	Pilot				
Alternative 1 (No Action)	• Escort tug required for single hull barges carrying bulk petroleum cargo and being towed by a single–screw tug and for any vessel engaged in towing any tank barge in the event of a casualty that impairs navigation and/or seaworthiness of the barge. • Any tank barge with a capacity of <25,000 barrels operating in limited depth/width or any tank barge whose operator demonstrates the employment of an equivalent amount of safety to that provided by an escort tug is exempt from the escort tug requirement.	• None	• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• Every vessel towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.	• Towing vessel owner/operator must prepare a written voyage plan for each transit.	• None

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				
Alternative 2	• Escort tug required for all tank barges carrying **≥6,000** barrels of petroleum if not self-propelled. • Any tank barge with a capacity of <25,000 barrels operating in limited depth/width or any tank barge whose operator demonstrates the employment of an equivalent amount of safety to that provided by an escort tug is exempt from the escort tug requirement with authorization from the Captain of the Port (COTP).	• State-licensed pilot required if tank barge not accompanied by an escort tug. • The tow barge master is not required to allow the pilot onboard, therefore, pilot may have to direct and control primary tow vessel from aboard the escort tug.	• Towing barges carrying **≥6,000** barrels of oil (no other petroleum products specified) must have onboard one licensed deck officer or barge operator serving as lookout and three licensed officers or tow vessel operators on tow vessel. (Only applicable to barges carrying oil.) • Tank barges must have onboard at all times one certified tanker-man and one other crew member.	• Towing vessels must report to the Vessel Traffic System (VTS) and maintain communication / radio monitoring. • Must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places including Buzzards Bay Entrance Light, Buzzards Bay Mid-channel Light, and Cleveland East Ledge Light.	• Same as Alternative 1. Towing vessel owner/operator must prepare a written voyage plan for each transit.	• Mandatory travel within U.S. Coast Guard designated vessel route unless special circumstances require diversion to avoid imminent navigation hazard.

--------Alternative 3a	• Escort tug required for single hull tank barges carrying **≥5,000** barrels.
	• Same escort tug exemption as Alternative 1.
		• Federal pilot, not a member of the crew, required for all single hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• All tank barges transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone.
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible.
				  • Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner/operator must prepare a written voyage plan for each transit.	• U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				

Alternative 3b	• Escort tug required for single **and** double hull tank barges carrying **≥5,000** barrels of oil or other hazardous.
	• Same escort tug exemption as Alternative 1.
		• Federal pilot, not a member of the crew, required for single hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• Same as Alternative 2. Towing barges carrying **≥6,000** barrels of oil (no other petroleum products specified) must have onboard one licensed deck officer or barge operator serving as lookout and three licensed officers or tow vessel operators on tow vessel. (Only applicable to barges carrying oil.)
			• Tank barges must have onboard at all times one certified tanker-man and one other crew member.
				• Same as Alternative 3a. All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• Tank barges transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone.
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible.
				• Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner/operator must prepare a written voyage plan for each transit.	• Same as Alternative 3a. U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

Alternative 4	• Escort tug required for single **and** double hull tank barges (not tank ships) carrying **≥5,000** barrels of oil or other hazardous substance.
	• Same escort tug exemption as Alternative 1.
		• Federal pilot, not a member of the crew, required for single **and** double hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• Same as Alternative 3a. All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• Tank barges transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone.
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible.
				• Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner/operator must prepare a written voyage plan for each transit.	• Same as Alternative 3a. U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				

Alternative 5	• Same as Alternative 3a.	• Same as Alternative 3a. Federal pilot, not a member of the crew, required for all single hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• Tank barges carrying **≥5,000** barrels of oil or other hazardous substance transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone.
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible.
				  • Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner/operator must prepare a written voyage plan for each transit.	• Same as Alternative 3a. U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

ES-3 Affected Environment and Consequences

Table ES-2 provides a summary of the environmental findings of this EA. A more detailed discussion of the findings of this EA is included at the end of this table. *Note that in Table ES-2, "no impact" indicates that there would be no discernible change over pre-2007 RNA conditions.

Table ES-2. Summary of Environmental Findings

Resource/Issue	Alternative					
	Alternative 1 (No Action)	**Alternative 2**	**Alternative 3a**	**Alternative 3b**	**Alternative 4**	**Alternative 5**
Navigation & Vessel Movement [Benefit to the environment is derived from the reduction in potential for occurrence of a marine incident (grounding, allision, collision) that could result in release of hazardous cargo, and the leak resistance of the type of tank vessel in use at the time of the incident.]						
Positive Control	No Impact *.	Minor to substantial increase in control due to tug and pilot requirements.	Minor to substantial benefit in control due to tug and pilot requirements.	Minor to substantial increase in control due to tug and pilot requirements.	Minor to substantial increase in control due to tug and pilot requirements.	Minor to substantial increase in control due to tug and pilot requirements.
Manning	No impact.	Substantial benefit from dedicated lookout requirement.	Substantial benefit from requirement for pilot to be on primary towing vessel.	Very substantial benefit from dedicated lookout requirement and for pilot to be on primary towing vessel.	Substantial benefit from requirement for pilot to be on primary towing vessel.	Substantial benefit from requirement for pilot to be on primary towing vessel.
Communications	No impact.	Very substantial benefit from communications requirement (VTS).	Very substantial benefit from communications requirements (VMRS).	Very substantial benefit from communications requirements (VMRS).	Very substantial benefit from communications requirements (VMRS).	Very substantial benefit from communications requirements (VMRS).
Voyage Planning	No impact.	No impact.	No Impact.	No impact.	No impact.	No impact.
Restricted Navigation	No impact.	Minor benefit.	No impact.	No impact.	No impact.	No impact.

Resource/Issue	Alternative					
	Alternative 1 (No Action)	Alternative 2	Alternative 3a	Alternative 3b	Alternative 4	Alternative 5
Double Hull Tank Vessel	Some benefit for accelerated use of double hull tank vessel.	All in 2015	Substantial benefit for accelerated use of double hull tank vessel.	Some benefit for accelerated use of double hull tank vessel.	All in 2015	Substantial benefit for accelerated use of double hull tank vessel.

Resource/Issue	Alternative					
	Alternative 1 (No Action)	Alternative 2	Alternative 3a	Alternative 3b	Alternative 4	Alternative 5
Biological Resources						
Eelgrass and Salt marsh Habitats	No impact.	Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Minor to substantial increase in protection from oil spill compared to Alternative 1.
Benthic Communities	No impact.	Minor long-term impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor to substantial increase in protection from oil spill compared to Alternative 1.
Shellfish	No impact.	Minor long-term impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor to substantial increase in protection from oil spill compared to Alternative 1.
EFH	No impact.	Minor long-term impact from increased traffic (tug escorts). Substantial increase in protection from oil spill	Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term impact from increased traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term impact from increased traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor to substantial increase in protection from oil spill compared to Alternative 1.

Resource/Issue	Alternative					
	Alternative 1 (No Action)	Alternative 2	Alternative 3a	Alternative 3b	Alternative 4	Alternative 5
		compared to Alternative 1.				
Protected Species	No impact.	Minor long-term adverse impact from increase in potential hazard of ship strikes with protected species from additional traffic (tug escorts). Potential beneficial long-term impact through dedicated lookouts. Substantial increase in protection from oil spill compared to Alternative 1.	Potential beneficial short-term impact through improved vessel communications. Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term adverse impact through increase in potential hazard of ship strikes with protected species from additional traffic (tug escorts). Potential long-term benefit impact through improved vessel communications and dedicated lookout. Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term adverse impact through increase in potential hazard of ship strikes with protected species from additional traffic (tug escorts). Potential beneficial long-term impact through improved vessel communications. Substantial increase in protection from oil spill compared to Alternative 1.	Potential beneficial short-term impact through improved vessel communications. Minor to substantial increase in protection from oil spill compared to Alternative 1.
Socioeconomics						
Population	No impact.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.
Recreation	No impact.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.

Resource/Issue	Alternative					
	Alternative 1 (No Action)	Alternative 2	Alternative 3a	Alternative 3b	Alternative 4	Alternative 5
Economy	No impact.	Beneficial impact to municipalities through increased protection from oil spills. Long-term, adverse financial impact to barge owners for tug escort fees. Short-term economic costs to Massachusetts for state-licensed pilots.	Beneficial impact to municipalities through increased protection from oil spills. Short-term, minor adverse financial impact to barge owners for pilot fees. Short-term economic benefits to federal pilots. Substantial benefit through economic incentive for less use of single hull barges in advance of 2015 phase out deadline.	Beneficial impact to municipalities through increased protection from oil spills. Long-term adverse financial impact to barge owners for tug escort and pilot fees. Long-term economic benefits to escort tug owners and federal pilots.	Beneficial impact to municipalities through increased protection from oil spills. Long-term adverse financial impact to barge owners for tug escort and pilot fees. Long-term economic benefits to escort tug owners and federal pilots.	Beneficial impact to municipalities through increased protection from oil spills. Short-term, minor adverse financial impact to barge owners for pilot fees and escort tugs. Short-term economic benefits to federal pilots and escort tug owners.
Employment	No impact.	Potential long-term beneficial impacts if additional pilots are required.	Potential long-term beneficial impacts if additional pilots are required.	Potential long-term beneficial impacts if additional pilots are required.	Potential long-term beneficial impacts if additional pilots are required.	Potential long-term beneficial impacts if additional pilots are required.
Public Health and Safety						
Public Health and safety	No change in impact.	Indirect benefit through reduction in risk of exposure to an oil spill.	Indirect benefit through reduction in risk of exposure to an oil spill.	Indirect benefit through reduction in risk of exposure to an oil spill.	Indirect benefit through reduction in risk of exposure to an oil spill.	Indirect benefit through reduction in risk of exposure to an oil spill.

The analysis performed for this EA indicates that all of the action alternatives considered at the time the 2007 RNA amendments were being written would reduce the potential for marine incidents and alternative 3(a) has the potential to accelerate reduction in the probability of product (oil or other hazardous material) release if an incident did occur. This analysis indicates that Alternative 3(a), the 2007 Final Rule, would cause the least adverse environmental impact while providing substantial risk reduction without placing unnecessary operational and economic burdens on navigation.

- By requiring escort tugs and federal pilots for single-hull barges only, Alternative 3(a) was expected to provide a financial incentive to barge owners/operators to utilize double hull barges as often as possible leading to greater use of double hull tank vessels sooner than the 2015 deadline when the phase-out of single hull vessels will be complete. By accelerating the reduction in the use of single hull tank barges, the risk of an incident resulting in the release of hazardous materials was expected to be reduced faster than would occur under the other alternatives.

- Alternative 3(a) includes the most stringent and immediate communication requirements for all tank barges (not just single hull barges) entering and transiting the bay. While the VTS system specified in Alternative 2 would be beneficial, it is not yet available in Buzzards Bay. Because this requirement affects all tank barges, it will remain in place even after single hull barges are phased out of service.

- Because it doesn't require as many additional vessels (escort tugs) as Alternatives 2, 3(b) and 4, Alternative 3(a) will have somewhat less potential for adverse impact to aquatic animals, plants and would not be expected to increase risk of collision that could be caused by additional vessel operations.

This analysis indicates that an Environmental Impact Statement (EIS) is not necessary for implementation of any of the action alternatives (Alternative 2 through 5). The U.S. Coast Guard has determined that a Finding of No Significant Impact (FONSI) will be appropriate to document the environmental effects analysis for implementation of Alternative 3(a) as the Final Rule in 2007. Alternative 3(a) was expected by the U.S. Coast Guard to provide the most time effective means of reducing the occurrence of oil spills on Buzzards Bay and therefore became the U.S. Coast Guard's preferred alternative.

ES-4 Agency and Public Consultation

The following entities were consulted in preparation of this DEA. Only the U.S. Fish and Wildlife Service provided a response. Copies of the consultation letters and the response are included in Appendix A.

- National Marine Fisheries Service (NMFS), Gloucester, MA
- U.S. Fish and Wildlife Service (USFWS), Concord, NH
- Massachusetts Historical Commission, Boston, MA
- Massachusetts Natural Heritage and Endangered Species Program (MESP), Westborough, MA

Prior to finalization of the 2007 Final Rule, the U.S. Coast Guard contacted the Massachusetts Coastal Zone Program (MCZP), which declined to review the Rule on the basis that it was not listed within the State's program as an activity likely to affect the State's coastal zone. Since this EA is being written with a baseline that predates promulgation of the 2007 Final Rule, the MCZP decision is

considered to be still valid for this analysis. The Commonwealth of Massachusetts, Attorney General's Office was also consulted regarding alternatives to be considered.

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ACRONYMS AND ABBREVIATIONS

APA	Administrative Procedures Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COMDTINST	Commandant Instruction
COTP	Captain of the Port
CZMA	Coastal Zone Management Act
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
ft	Feet
km	Kilometers
m	Meter
MBTA	Migratory Bird Treaty Act
MCZMP	Massachusetts Coastal Zone Management Program
MDEP	Massachusetts Department of Environmental Protection
MDFW	Massachusetts Division of Fisheries and Wildlife
MDMF	Massachusetts Division of Marine Fisheries
MESP	Massachusetts Natural Heritage and Endangered Species Program
MGL	Massachusetts General Law
MOSPRA	Massachusetts Oil Spill Prevention and Response Act
NEPA	National Environmental Policy Act
nm	Nautical miles
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OPA	Oil Pollution Act of 1990
PAWSA	Ports and Waterways Safety Assessment
PL	Public Law
RNA	Regulated Navigation Area

RRAT	Regional Risk Assessment Team
USACE	United States Army Corps of Engineers
USC	United States Code
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGAO	United States General Accounting Office
VMRS	Vessel Movement Reporting System
VTS	Vessel Traffic System

1 PURPOSE AND NEED FOR ACTION

1.1 Introduction

In 1985 the U.S. Congress designated Buzzards Bay as an "Estuary of National Significance"; it is also a component of the Massachusetts-designated "Cape and Islands Ocean Sanctuary" and contains some of Massachusetts' most productive shellfish beds. Buzzards Bay interacts with three different marine systems: the Atlantic Ocean to the south, Vineyard Sound to the east and Cape Cod Bay to the north. In 2010, approximately 7,000 commercial vessel transits occurred in Buzzards Bay, of which 495 were vessels (38 single hulls) laden with 5,000 or more barrels of petroleum or other hazardous material. Since 1969 there have been five incidents of tank barge groundings with oil spills in Buzzards Bay that have had an adverse impact on people, property, the coast and maritime environment, and the local economy. Groundings, allisions, or collisions involving vessels carrying bulk petroleum or other hazardous cargo can result in releases that have potential to cause substantial adverse impacts to the ecosystem of the bay and its coast as well as to people and property.

Following the oil spill from the tank barge North Cape off of Point Judith, Rhode Island in 1996, the U.S. Coast Guard chartered a Regional Risk Assessment Team (RRAT) comprised of government, commercial, and environmental entities, to examine navigation safety issues within New England waters. Based on RRAT recommendations, the U.S. Coast Guard implemented a Regulated Navigation Area (RNA) that imposed certain requirements on single hull tank barges transiting New England waters, including Buzzards Bay (33 Code of Federal Regulations [CFR] 165.100).

However, another oil spill occurred on April 27, 2003, when the Bouchard barge B-120, under tow and heading north into Buzzards Bay, ran aground in the vicinity of the southwest entrance to the Bay. The single hull barge, which was carrying approximately 97,619 barrels of No. 6 oil, suffered a 12 foot by 2 foot gash in its hull below the water line and released approximately 2,333 barrels of oil in the bay before the spill was controlled. Approximately 93 miles of coastline was polluted, more than 450 birds were killed, and thousands of acres of shellfish beds were shut down by the spill.

At that time, the Commonwealth of Massachusetts passed the Massachusetts Oil Spill Prevention and Response Act (MOSPRA), which was last amended in 2004. These state rules regulated the conditions under which tank barges carrying 6,000 or more barrels of oil could transit Buzzards Bay and other waters of the Commonwealth. However, as noted in two U.S. Supreme Court cases (1978 and 2000), certain regulations issued pursuant to the Ports and Waterways Safety Act of 1972, as amended, are reserved exclusively to the Coast Guard, and that state regulation in these areas is preempted. Therefore, the United States filed suit against Massachusetts in 2005 asserting that federal law was supreme in this case and alleging that certain provisions of MOSPRA are preempted by this federal law.

Subsequent to the barge B-120 spill in April 2003, the U.S. Coast Guard conducted its own study via a formal Ports and Waterways Safety Assessment (PAWSA) for Buzzards Bay to obtain expert judgments on the level of waterway risk and potential mitigation to reduce that risk. The PAWSA was conducted by a cross-section of key Buzzards Bay waterways users and stakeholders and included multiple steps that, among other things, evaluated the potential significance of each identified risk and the effectiveness of existing mitigation strategies in reducing risk; identified new ideas for further reducing risk; and weighed the effectiveness of various intervention actions in reducing unmitigated risk. The PAWSA concluded that the risk for oil or hazardous material discharge in Buzzards Bay was still relatively high at that time and made suggestions for improving navigation safety in the bay. The Coast Guard utilized the PAWSA results and other information to begin drafting amendments to the 1996 RNA.

1.2 Purpose and Need for the Action

In 2007 the U.S. Coast Guard published a Final Rule to implement amendments to the Regulated Navigation Area (RNA) implemented in 1996 which was applicable to tank barges carrying 5,000 or more barrels of oil on First Coast Guard District waters. The purpose of these amendments to navigation safety and waterways management regulations for Buzzards Bay was to reduce the likelihood that another marine incident would occur and take steps to ensure that if such incident did occur, it would be less likely to result in the discharge or release of oil or hazardous material, or cause other serious harm, on the navigable waters of the United States. (Final Rule CGD01-04-133 November 28, 2007). This goal was in keeping with the mandates of the Ports and Waterways Safety Act which declared that "increased supervision of vessel and port operations is necessary in order to reduce the possibility of vessel or cargo loss, or damage to life, property, or the marine environment; and to ensure that vessels operating in the navigable waters of the United States shall comply with all applicable standards and requirements for vessel construction, equipment, manning and operational procedures." The findings and recommendations of the PAWSA conducted after the April 2003 oil spill were considered in developing the 2007 RNA amendments. The 2007 federal Final Rule pilot and tug escort requirements apply only to single hull tank barges carrying oil or hazardous material, which are being phased out of operation (to be complete on December 31, 2014) under the Federal Oil Pollution Act of 1990 (OPA 90). Consequently, after December 31, 2014, the vessels subject to these regulatory elements under the 2007 amendments will no longer be in operation on Buzzards Bay.

Prior to implementing the 2007 federal amendments Final Rule, the U.S. Coast Guard conducted analysis of the environmental impacts from the proposed RNA amendments and concluded with a Categorical Exclusion Determination as defined in its Agency Procedures for Implementing the National Environmental Policy Act (NEPA).

In a ruling on May 17, 2011, the U.S. Court of Appeals for the First Circuit disagreed with the U.S. Coast Guard's choice of NEPA documentation and determined that the U.S. Coast Guard "failed to comply with its obligations under the National Environmental Policy Act" when it failed to prepare an Environmental Impact Statement (EIS) or an Environmental Assessment (EA) in connection with the 2007 RNA amendments. The court did not address the federal/state regulation preemption issue related to the 2007 RNA amendments. [see *U.S. v. Coalition for Buzzards Bay et al.,* 644 F. 3d. 26 (1st Cir. 2011)].

In response to the Court's determination, this Environmental Assessment was written to provide a complete and objective analysis of the impacts expected from the Buzzards Bay RNA amendments that were implemented in 2007. It does not address any new proposed changes to the Buzzards Bay Regulated Navigation Area regulations that have been in effect since then, and considers only those facts that were available at the time the 2007 amendments were being written. This final EA analyzes the 2007 amendments and alternatives in greater depth and detail than was conducted in the previously prepared Categorical Exclusion Determination.

This document compares environmental impacts expected from the reasonable alternative amendment scenarios (Alternatives 2 through 5) against the baseline of the RNA that was in effect prior to 2007 (The "No Action" Alternative 1) and identifies the preferred alternative (Alternative 3a - the amendments published in the 2007 Final Rule) which was expected at that time to produce the greatest reduction in the risk of a release of hazardous cargo to Buzzards Bay through the measured use of operational controls and increased tank vessel structural integrity (i.e. double hulled vs. single hulled vessels).

This Environmental Assessment was prepared in accordance with NEPA (42 USC §§4321 et. seq.); Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 CFR §§1500-1508) and associated CEQ guidelines; Department of Homeland Security Management Directive 5100.1, Environmental Planning Program; and U.S. Coast Guard Commandant Instruction (COMDTINST)

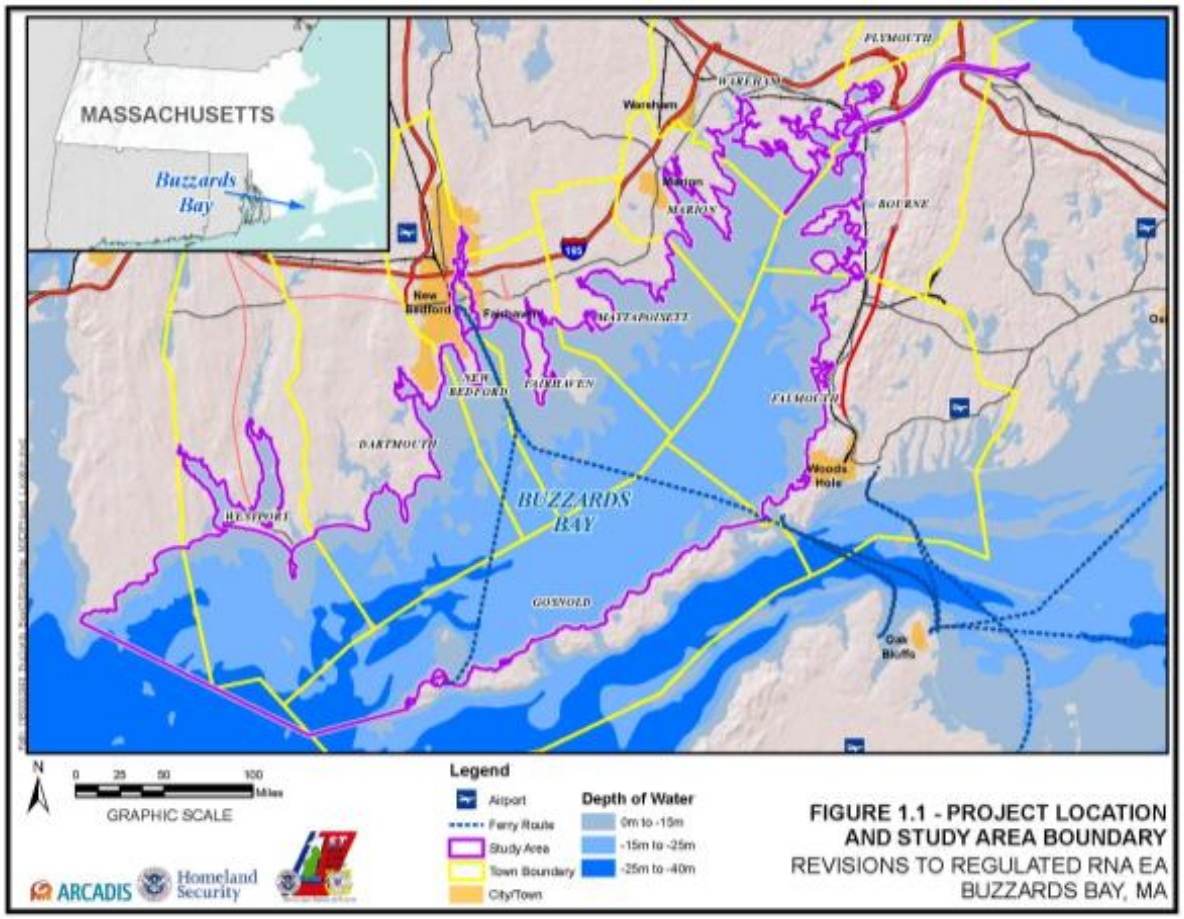
M16475.1D, National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts.

1.3 Project Scope and Area

The analysis reported in this EA focuses on specific alternatives implementing operational and/or structural requirements for minimizing the potential for incidents and the probability that such incidents would result in the discharge or release of oil or hazardous material, or cause serious harm, to navigable waters and shores of Buzzards Bay. The geographic bounds of Buzzards Bay as discussed in this EA are from Sakonnet Point southward to the north end of the Buzzards Bay traffic separation zone, to the southwestern tip of Cuttyhunk Island through Buzzards Bay to the eastern entrance of the Cape Cod Canal; Woods Hole Passage and Quicks Hole are included in the study area. Figure 1.1 shows the location and boundaries of Buzzards Bay.

This EA includes a discussion of potential navigational, biological and socioeconomic issues associated with each alternative (alternatives are identified and described in Section 2) and is intended to document the analysis employed by the U.S. Coast Guard when making its informed decision on which alternative provided the best protection when balanced with the other pertinent issues considered in 2007.

Figure 1.1



1.4 Agency and Public Involvement Process

Appendix C to this assessment contains the list of federal and state agencies as well as specific public interest groups and the general public which were notified that this EA was being prepared and were invited to comment on the draft version of this document.

Copies of direct communications sent to selected agencies and the response from the USFWS are included in Appendix A.

Thirty one commenter's submitted remarks when this Assessment was published as a draft. The Coast Guard's responses to those comments (grouped by category) are provided in Appendix D to this document. Furthermore, appropriate sections of this final EA have been edited to reflect clarifications and additional information based upon these comments.

Prior to finalization of the 2007 Final Rule, the U.S. Coast Guard contacted the Massachusetts Coastal Zone Program (MCZP), which declined to review the Rule on the basis that it was not listed within the State's program as an activity likely to affect the State's coastal zone. Since this EA is being written with a baseline that predates promulgation of the 2007 Final Rule, the MCZP decision is considered to be still valid for this analysis.

1.5 Summary of Key Environmental Compliance Requirements

Environmental regulations relevant to this environmental assessment include, but are not limited to, the following:

- National Environmental Policy Act of 1969, 42 USC §§ 4321 et. seq., establishes national environmental policy, including a multidisciplinary approach to considering environmental effects in federal government agency decision making and the procedural requirements for all federal government agencies to prepare EAs and EISs. The act also established the CEQ.

- COMDTINST M16475.1D, establishes the U.S. Coast Guard's procedures and policy for implementing NEPA and for considering environmental impacts.

- 40 CFR §§1500-1508 establishes CEQ regulations for implementing NEPA.

- Ports and Waterways Safety Act (PWSA), P.L. 95-474, 33 U.S.C. 1223(c), is designed to promote navigation, vessel safety, and protection of the marine environment. It authorizes the U.S. Coast Guard to establish vessel traffic service/separation schemes (VTSS) for ports, harbors, and other waters subject to congested vessel traffic. The PWSA was amended by the Port and Tanker Safety Act (PTSA) of 1978.

- Ports and Tanker Safety Act (PTSA), PL 95-474, provides regulatory authority over the supervision and control of vessels operating in U.S. navigable waters, and in the safety of foreign or domestic tank vessels that transport or transfer oil or hazardous cargoes in ports or places subject to United States jurisdiction.

- Coastal Zone Management Act (CZMA), calls for the "effective management, beneficial use, protection, and development" of the nation's coastal zone and requires participating states to develop management programs for their coastal zones. The Massachusetts Coastal Zone Management Office under the Massachusetts Executive Office of Environmental Affairs is responsible for administering the Massachusetts CZM Program (MCZMP). The CZMA also

requires federal agencies to conduct and direct their licensing activities in a manner consistent with the state's approved coastal program policies to the maximum extent practicable not otherwise prohibited by applicable law.

- Magnuson-Stevens Fishery Conservation and Management Act, P.L. 104-267, establishes procedures to identify, conserve, and enhance essential fish habitat (EFH).

- Endangered Species Act (ESA), 16 USC 1531 et seq., mandates that any project authorized, funded, or conducted by a federal agency should not "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined…to be critical." Under Section 7, the U.S. Coast Guard is required to "informally" consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NMFS) to determine if any federally listed or proposed endangered or threatened species or their designated critical habitats occur in the project area and could be adversely impacted by the proposed action.

- Marine Mammals Protection Act, 16 U.S.C. 31 et seq., prohibits the "take" of marine mammals, with certain exceptions, in waters of the U.S. and requires consultation with the NMFS if impacts on marine mammals are unavoidable. Section 3 of the act defines a "take" as "harass, capture, hunt, kill, or attempt to harass, capture, hunt, or kill any marine mammal."

- Migratory Bird Treaty Act (MBTA), 16 USC 703-712, protects species or families of birds that live, reproduce, or migrate within or across international borders during their life cycle. The MBTA provides that among other things, it is unlawful to kill any migratory bird, or any part, nest, or egg of any such bird, unless authorized under a permit issued by the Secretary of the Interior.

- National Historic Preservation Act, as amended, 16 USC 470 et seq., requires federal agencies to consider the effects of their undertakings on properties listed or eligible for listing in the National Register of Historic Places.

- Executive Order 11514, Protection and Enhancement of Environmental Quality, instructs federal agencies to take a leadership role in protecting and enhancing environmental quality.

- The 1st U.S. Circuit Court of Appeals ruling pertaining to the U.S. Coast Guard's NEPA analysis for the 2007 Final Rule. Determined that the U.S. Coast Guard failed to comply with its obligations under NEPA when it failed to prepare an EIS or an EA on the 2007 Final Rule to implement RNA amendments.

- Oil Pollution Prevention and Response Act of 2007, provides the U.S. Coast Guard and national Oceanic and Atmospheric Administration (NOAA) with additional authorities under the Oil Pollution Act of 1990, to strengthen the Oil Pollution Act of 1990, and for other purposes.

- Oil Pollution Act of 1990 (OPA), mandates the phase out of single hull, oil-carrying vessels by 2015 and requires all oil-carrying vessels from January 1, 2015 on to have double hulls.

1.6 Organization of the EA

This EA is organized in the following sections: Section 1 describes the purpose and need for the EA as well as the boundaries of the project area and environmental compliance requirements. Section 2 describes alternatives that are evaluated herein as well as those that were discarded as not meeting the

purpose or need. Chapter 2 also provides a summary comparison of the environmental effects of the alternatives considered in this EA. Section 3 sets the stage for the analysis by describing pre-2007 RNA conditions (those that existed prior to the enactment of the 2007 Final Rule) and Section 4 identifies the potential beneficial and adverse impacts of each alternative by resource area. Cumulative impacts are described in Section 5.

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2 ALTERNATIVES CONSIDERED

2.1 Identification of Alternatives

This section identifies the alternatives that are considered in this EA. Categorical Exclusion Determinations, like the one originally prepared in 2007 for these RNA Amendments normally do not identify alternatives. Therefore, the alternatives identified in this EA were generated based upon knowledge of the various issues being considered at the time the amendments were being written. The following text provides a summary of each alternative and Table 2-1 provides details on the elements included in each alternative.

2.1.1 Alternative 1 - No Action

The No Action alternative is described as the continuation of navigation in Buzzards Bay in compliance with the U.S. Coast Guard regulations that were in effect prior to the promulgation of the August 30, 2007 Final Rule amending the RNA. The pre-2007 regulations included provisions regarding positive control (escort tugs) for single hull barges, enhanced communications, voyage planning, and navigation restriction areas. They also included an exemption from the positive control requirement for tank barges having less than 25,000 barrel capacity whose operator could demonstrate the implementation of measures that achieved a level of safety equivalent to use of positive control (escort tug). A copy of the pertinent CFR section reflecting the RNA prior to the 2007 Final Rule is provided in Appendix B.

2.1.2 Alternative 2

Alternative 2 is described as maintaining the baseline level of protection provided by U.S. Coast Guard and Massachusetts laws and regulations in place before the U. S. Coast Guard promulgated the 2007 Final Rule for Buzzards Bay on August 30, 2007 and after the U.S. Court of Appeals for the First Circuit vacated the injunction that prevented enforcement of the Massachusetts laws on July 11, 2011 (e.g., 33 CFR § 165.100 (2007); Massachusetts Oil Spill Prevention Act (MOSPRA), Massachusetts General Law (MGL) 21M, §§ 1, 4, and 6).

Section 4 of MOSPRA establishes enhanced personnel requirements for vessels towing single hull barges loaded with 6,000 or more barrels of oil in Buzzards Bay and the Cape Cod Canal.

Section 6 of MOSPRA requires both single and double hull tank barges loaded with 6,000 or more barrels of oil to hire a tugboat escort that meets specified regulatory standards to accompany them through Buzzards Bay and the Cape Cod Canal.

This alternative includes the positive control exemption for tank barges under 5,000 barrel capacity as in Alternative 1, but COTP authorization is required to exercise this exemption.

2.1.3 Alternative 3

Alternative 3 is described as the regulatory regime that requires: (1) a federally licensed pilot, not a member of the crew, on each vessel towing a single hull tank barge transporting 5,000 or more barrels of oil or hazardous material through Buzzards Bay and the Cape Cod Canal, 33 CFR § 165.100(d)(5)(iii) (2010); (2) a tugboat escort for all single hull tank barges transporting 5,000 or more barrels of oil or hazardous material through Buzzards Bay and the Cape Cod Canal, 33 CFR. § 165.100(d) (5) (ii) (2010); and (3) participation in the Vessel Movement Reporting System (VMRS), 33 CFR §165.100(d) (5) (iv) (2010); and includes the same exemption as Alternative 1 for tank barges having less than 5,000 barrel capacity:

(a) Includes the above requirements (under Alt 3.), but does not incorporate the protections provided for in MOSPRA Sections 4 (enhanced personnel requirements for single hull barges and their towing vessels transporting 6,000 or more barrels of oil through Buzzards Bay and the Cape Cod Canal) and MOSPRA Section 6 (tugboat escort for both single and double hull barges transporting 6,000 or more barrels of oil through Buzzards Bay and the Cape Cod Canal) of MOSPRA, MGL 21M, §§ 1, 4, and 6; **or**

(b) Includes the above requirements (under Alt.3.) and does incorporate the protections provided for in MOSPRA Section 4 (enhanced personnel requirements for single hull barges and their towing vessels transporting 6,000 or more barrels of oil through Buzzards Bay and the Cape Cod Canal) and MOSPRA Section 6 (tugboat escort for both single and double hull barges transporting 6,000 or more barrels of oil through Buzzards Bay and the Cape Cod Canal) of MOSPRA, (MGL 21M, §§ 1, 4, and 6).

2.1.4 Alternative 4

Alternative 4 is described as including the requirements specified in Alternative 3 (a) above and extends the requirement for a federally licensed pilot, not a member of the crew, on each vessel towing a single hull tank barge transporting 5,000 or more barrels of oil or hazardous material through Buzzards Bay and the Cape Cod Canal (33 CFR §165.100(d)(5)(iii) [2010]) and tugboat escort for all single hull tank barges transporting 5,000 or more barrels of oil or hazardous material through Buzzards Bay and the Cape Cod Canal (33 CFR § 165.100(d)(5)(ii) [2010] to all double hull tank barges transporting 5,000 or more barrels of oil or other hazardous material through Buzzards Bay. This alternative assumes that sections 4 and 6 of MOSPRA (MGL 21M, §§ 1, 4, and 6) will be rendered largely duplicative and therefore are not analyzed. This alternative also includes the same exemption as Alternative 1 for tank barges having less than 25,000 barrel capacity.

2.1.5 Alternative 5

Alternative 5 is described as including the requirements of Alternative 3(a) with the exception that only those barges laden with 5,000 or more barrels of petroleum or other hazardous material, whether single or double hull, would be required to participate in and be actively monitored by the VMRS. Alternative 3(a) applies to all vessels towing a tank barge regardless of the barrel capacity of the barge. Under Alternative 5, the number of monitored vessels would decrease from approximately 7,000 per year to about 600 per year. This alternative also includes the same exemption as Alternative 1 for tank barges having less than 25,000 barrel capacity.

Table 2-1. Components of the Alternatives Considered in this EA

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				
Alternative 1 (No Action)	• Escort tug required for single hull barges carrying petroleum cargo in bulk and being towed by a single screw tug and for any vessel engaged in towing any tank barge in the event of a casualty that impairs navigation and/or seaworthiness of the barge. • Any tank barge with a capacity of <25,000 barrels operating in limited depth/width or any tank barge whose operator demonstrates the employment of an equivalent amount of safety to that provided by an escort tug is exempt from the escort tug requirement.	• None	• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• Every vessel towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.	• Towing vessel owner / operator must prepare a written voyage plan for each transit.	• None
Alternative 2	• Escort tug required for all single and double hull tank barges carrying **≥6,000** barrels of petroleum if not self-propelled. • Any tank barge with a capacity of<25,000 barrels operating in limited depth/width or any tank barge whose operator demonstrates the employment of an equivalent amount of safety to that provided by an escort tug is exempt from the escort tug requirement with authorization from the Captain of the Port(COTP).	• State-licensed pilot required for single hull barge if tank barge is not accompanied by an escort tug. • The tow vessel master is not required to allow pilot onboard, therefore, pilot may have to direct and control primary tow vessel from aboard the escort tug.	• Towing vessels carrying **≥6,000** barrels of oil (no other petroleum products specified) must have onboard one licensed deck officer or vessel operator serving as lookout and three licensed officers or tow vessel operators on tow vessel. Only applicable to vessels carrying oil. • Tank barges must have onboard at all times one certified tanker-man and one other crew member.	• Towing vessels must report to the Vessel Traffic System (VTS) and maintain communication / radio monitoring. • Must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places including Buzzards Bay Entrance Light, Buzzards Bay Mid-channel Light, and Cleveland East Ledge Light.	• Same as Alternative 1. Towing vessel owner / operator must prepare a written voyage plan for each transit.	• Mandatory travel within U.S. Coast Guard designated vessel route unless special circumstances require diversion to avoid imminent navigation hazard.

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				

Alternative 3a	• Escort tug required for single hull tank barges carrying **≥5,000** barrels.
	• Same escort tug exemption as Alternative 1.
		• Federal pilot, not a member of the crew, required for all single hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• All tank barges transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone.
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible.
				  • Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner / Operator must prepare a written voyage plan for each transit.	• U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

Alternative 3b	• Escort tug required for single **and** double hull tank barges carrying **≥5,000** barrels of oil or other hazardous.
	• Same escort tug exemption as Alternative 1.
		• Federal pilot, not a member of the crew, required for single hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• Same as Alternative 2. Towing vessels carrying **≥6,000** barrels of oil (no other petroleum products specified) must have onboard one licensed deck officer or vessel operator serving as lookout and three licensed officers or tow vessel operators on tow vessel. (Only applicable to vessels carrying oil.)
			• Tank barges must have onboard at all times one certified tanker-man and one other crew member.
				• Same as Alternative 3a. All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• Tank barges transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone.
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible.
				  • Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner / operator must prepare a written voyage plan for each transit.	• Same as Alternative 3a. U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				

Alternative 4	• Escort tug required for single and double hull tank barges (not tank ships) carrying **≥5,000** barrels of oil or other hazardous substance.
	• Same escort tug exemption as Alternative 1.
		• Federal pilot, not a member of the crew, required for single **and** double hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• Same as Alternative 3a. All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• Tank barges transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone.
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible.
				  • Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner / operator must prepare a written voyage plan for each transit.	• Same as Alternative 3a. U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				

Alternative 5	• Same as Alternative 3a.
	• Escort tug required for single hull tank barges carrying **≥5,000** barrels.
	• Same escort tug exemption as Alternative 1.
		• Same as Alternative 3a.
		• Federal pilot, not a member of the crew, required for all single hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• .All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• Tank barges carrying **≥5,000** barrels of oil or other hazardous substance transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone.
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible.
				  • Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner / operator must prepare a written voyage plan for each transit.	• Same as Alternative 3a. U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

2.2 Alternatives Considered but Eliminated from Further Analysis

The requirement to establish minimum horsepower or bollard pull requirements for escort tugs was considered as a potential option. The pre-2007 RNA defines an escort tug as a vessel of "sufficient capability to promptly push or tow the tank barge away from danger of grounding or collision." The definition is the direct product of the RRAT (Regional Risk Assessment Team - 1996) and was directed by Congress to be adopted. The U.S. Coast Guard believes this definition to be sufficient and discarded this option from further consideration.

2.3 Resources Eliminated from Detailed Analysis

CEQ regulations (§1501.7) state that the lead agency shall identify and eliminate from detailed study the issues or resources that are not important or have been covered by prior environmental review, narrowing the discussion of these issues in the document to a brief justification that demonstrates a minor impact on the human environment. It was determined that the following resources would not be affected by the alternatives considered in this EA. As a result, they were not analyzed as part of this review.

2.3.1 Visual/Aesthetic Resources

Visual or aesthetic resources would not be substantially affected by implementation of any of the alternatives described in this EA. The presence of escort tugs would not appreciably change the profile or visibility of commercial barges when viewed from shore, and, although the visual evidence of an oil spill on shorelines and beaches would be adverse, the visual effects would not vary substantially between the alternatives. Consequently, visual and aesthetic resources are not evaluated in this EA.

2.3.2 Noise

Although the presence of an additional escort tug would potentially increase noise levels under some of the alternatives being considered, the increase over existing noise levels on Buzzards Bay is not anticipated to be substantial. Further, since any noise changes would be from moving sources, the noise effects should be of short-term duration and variable intensity based on atmospheric conditions and other vessel traffic in the area as well as receptor locations on other passing vessels or on shore. Therefore, noise impacts of the alternatives are not evaluated in this EA.

2.3.3 Cultural Resources

Cultural resources are not addressed in this EA since historic properties and archaeological sites would not be affected by any of the alternatives. Therefore, cultural resources are not evaluated in this EA.

2.3.4 Air Quality

Although the increased use of tug escorts would add airborne pollutants to the region, the impact would be negligible when compared to the existing commercial traffic in Buzzards Bay. Therefore, air quality is not evaluated in this EA.

2.3.5 Water Quality

The addition or elimination of escort tugs would not have a substantial impact on water quality since they are not allowed to discharge sanitary waste or bilge water in Buzzards Bay. Therefore, water quality is not evaluated in this EA.

2.3.6 Geology and Soils

Geology and soils are not discussed in this EA since the alternatives would not affect or be affected by those resources.

2.3.7 Environmental Justice

Environmental Justice is not addressed in this EA since implementation of any of the alternatives would not disproportionately affect any particular minority or disadvantaged human population group and the reduction in risk from a spill would be beneficial equally to all communities along the Bay and Canal.

2.3.8 Protection of Children from Environmental, Health, and Safety Risks

Protection of children from environmental, health, and safety risks is not addressed in this EA since children are generally not involved in implementation of the measures described in each of the alternatives. Furthermore, the impact of an oil spill would be similar regardless of which alternative was implemented and would be no greater on children than on adults in the potentially affected communities. In addition, the reduced probability of a spill that would result from implementation of any of the action alternatives would be beneficial to the natural and human environment.

2.4 Comparison of Environmental Effects of All Alternatives

The analysis conducted for this EA indicates that all of the action alternatives (Alternatives 2 through 5) would achieve some degree of success in reducing the probability of an accident, and/or the potential for release of oil as a result of a marine accident, in Buzzards Bay. When compared to all the alternatives under the circumstances that existed in 2007, Alternative 3(a) is identified as the preferred alternative that was implemented in the Final Rule for the 2007 RNA amendments.

By requiring escort tugs and federal pilots for single-hull barges only, it was anticipated that Alternative 3(a) would provide a financial incentive for barge owners/operators to choose to utilize double hull barges over those with single hulls in advance of the 2015 deadline when the phase-out of single hull tank barges is required to be completed. The Coast Guard anticipated that accelerating the scheduled reduction in the use of single hull tank barges would benefit the Buzzards Bay environment through the more frequent use of double hull tank barges which have greater resistance to release of their cargo under the same incident circumstances that would likely result in release from a single hull tank barge. None of the other alternatives included such incentive.

In addition, improved communications is expected to result in a substantial reduction in the risk of collisions by enhancing mariners' navigation and situational awareness. Alternative 3(a) includes the most stringent and immediate communication requirements for all tank barges (not just single hull barges) entering and transiting the bay. Since this requirement affects all tank barges, it will remain in place even after single hull barges are phased out of service. While the VTS system specified in Alternative 2 would be beneficial, it is not yet available in Buzzards Bay and would, therefore provide only the potential for, but not an immediate benefit.

Lastly, because it doesn't require additional vessels (escort tugs) to operate on the Bay as is the case with Alternatives 2, 3(b) and 4, Alternative 3(a) would not be expected to increase the potential for adverse effects on marine animals, plants or risk of collision that could be caused by additional vessel operations.

Table 2-2 provides a summary comparison of the impacts of each of the alternatives. Note that in this table "no impact" indicates that there would be no change from pre-2007 RNA conditions.

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Table 2-2. Summary of Environmental Findings

Resource/Issue	Alternative					
	Alternative 1 (No Action)	**Alternative 2**	**Alternative 3a**	**Alternative 3b**	**Alternative 4**	**Alternative 5**
Navigation & Vessel Movement [Benefit to the environment is derived from the reduction in potential for occurrence of a marine incident (grounding, allision, collision) that could result in a release of hazardous cargo, and the leak resistance of the type of tank vessel in use at the time of the incident.]						
Positive Control	No impact.	Minor to substantial increase in control due to tug and pilot requirements.	Minor to substantial increase in control due to tug and pilot requirements.	Minor to substantial increase in control due to tug and pilot requirements.	Minor to substantial increase in control due to tug and pilot requirements.	Minor to substantial increase in control due to tug and pilot requirements.
Manning	No impact.	Substantial benefit from requirement for dedicated lookout requirement.	Substantial benefit from requirement for pilot to be on primary towing vessel.	Very substantial benefit from dedicated lookout requirement and for pilot to be on primary towing vessel.	Substantial benefit from requirement for pilot to be on primary towing vessel.	Substantial benefit from requirement for pilot to be on primary towing vessel.
Communications	No impact.	Very substantial benefit from communications requirement.(VTS not yet developed)	Very substantial benefit from communications requirements.	Very substantial benefit from communications requirements.	Very substantial benefit from communications requirements.	Very substantial benefit from communications requirements.
Voyage Planning	No impact.	No impact.	No impact.	No impact.	No impact.	No impact.
Restricted Navigation	No impact.	Minor benefit.	No impact.	No impact.	No impact.	No impact.
Double hull Tank Vessel	Some benefit for accelerated use of double hull tank vessel.	All in 2015	Substantial benefit for accelerated use of double hull tank vessels.	Some benefit for accelerated use of double hull tank vessel.	All in 2015	Substantial benefit for accelerated use of double hull tank vessel.

Resource/Issue	Alternative					
	Alternative 1 (No Action)	Alternative 2	Alternative 3a	Alternative 3b	Alternative 4	Alternative 5
Biological Resources						
Eelgrass and Salt marsh Habitats	No impact.	Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Minor to substantial increase in protection from oil spill compared to Alternative 1.
Benthic Communities	No impact.	Minor long-term adverse impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term adverse impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term adverse impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor to substantial increase in protection from oil spill compared to Alternative 1.
Shellfish	No impact.	Minor long-term adverse impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term adverse impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term adverse impact from increased vessel traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor to substantial increase in protection from oil spill compared to Alternative 1.
EFH	No impact.	Minor long-term adverse impact from increased traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term adverse impact from increased traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term adverse impact from increased traffic (tug escorts). Substantial increase in protection from oil spill compared to Alternative 1.	Minor to substantial increase in protection from oil spill compared to Alternative 1.

Resource/Issue	Alternative					
	Alternative 1 (No Action)	Alternative 2	Alternative 3a	Alternative 3b	Alternative 4	Alternative 5
Protected Species	No impact.	Minor long-term adverse impact from increase in potential hazard of ship strikes with protected species from additional traffic (tug escorts). Potential beneficial long-term impact through dedicated lookouts. Substantial increase in protection from oil spill compared to Alternative 1.	Potential beneficial long-term impact through improved vessel communications. Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term adverse impact through increase in potential hazard of ship strikes with protected species from additional traffic (tug escorts). Potential long-term benefit impact through improved vessel communications and dedicated lookout. Substantial increase in protection from oil spill compared to Alternative 1.	Minor long-term adverse impact through increase in potential hazard of ship strikes with protected species from additional traffic (tug escorts). Potential beneficial long-term impact through improved vessel communications. Substantial increase in protection from oil spill compared to Alternative 1.	Potential beneficial long-term impact through improved vessel communications. Minor to substantial increase in protection from oil spill compared to Alternative 1.
Socioeconomics						
Population	No impact.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.
Recreation	No impact.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.	Beneficial impact through increased protection from oil spills.

Resource/Issue	Alternative					
	Alternative 1 (No Action)	Alternative 2	Alternative 3a	Alternative 3b	Alternative 4	Alternative 5
Economy	No impact.	Beneficial impact to municipalities through increased protection from oil spills. Short-term minor economic costs to Massachusetts for state-licensed pilots.	Beneficial impact to municipalities through increased protection from oil spills. Short-term, minor adverse financial impact to barge owners for pilot fees. Short-term economic benefits to federal pilots. Substantial benefit through economic incentive for less use of single hull barges in advance of 2015 phase out deadline.	Beneficial impact to municipalities through increased protection from oil spills. Long-term adverse financial impact to barge owners for tug escort and pilot fees. Long-term economic benefits to escort tug owners and federal pilots. Some benefit through economic incentive for less use of single hull barges in advance of 2015 phase out deadline.	Beneficial impact to municipalities through increased protection from oil spills. Long-term adverse financial impact to barge owners for tug escort and pilot fees. Long-term economic benefits to escort tug owners and federal pilots.	Beneficial impact to municipalities through increased protection from oil spills. Short-term, minor adverse financial impact to barge owners for pilot fees. Short-term economic benefits to federal pilots. Substantial benefit through economic incentive for less use of single hull barges in advance of 2015 phase out deadline.
Employment	No impact.	Potential long-term beneficial impacts if additional pilots are required.	Potential short-term beneficial impacts if additional pilots are required.	Potential long-term beneficial impacts if additional pilots are required.	Potential long-term beneficial impacts if additional pilots are required.	Potential short-term beneficial impacts if additional pilots are required.
Public Health and Safety						
Public Health and safety	No change in impact.	Indirect benefit through reduction in risk of exposure to an oil spill.	Indirect substantial benefit through reduction in risk of exposure to an oil spill.	Indirect benefit through reduction in risk of exposure to an oil spill.	Indirect benefit through reduction in risk of exposure to an oil spill.	Indirect benefit through reduction in risk of exposure to an oil spill.

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3 AFFECTED ENVIRONMENT

3.1 Introduction

3.1.1 Resources for Analysis

This section describes the navigational, environmental and socioeconomic conditions most likely to be affected by implementation of any of the alternatives and serves as the baseline against which potential impacts will be identified and evaluated. In compliance with NEPA and CEQ guidelines, the description of the affected environment focuses on those conditions and resource areas potentially affected by the alternatives. These resources include navigation and vessel movement, biological resources, and socioeconomics. Environmental resources and conditions that are not present in the area or that would not be affected by implementation of any of the alternatives are listed in Section 2.3 of this EA, along with the reasons for why they are not analyzed in depth in this assessment.

3.1.2 Region of Influence

The study area for analysis as discussed in this EA is from Sakonnet Point southward to the north end of the Buzzards Bay traffic separation zone, to the southwestern tip of Cuttyhunk Island through Buzzards Bay to the eastern entrance of the Cape Code Canal; Woods Hole Passage and Quicks Hole are included in the study area. Figure 1.1 shows the boundaries of the study area.

3.1.3 Environmental Regulations, Laws, and Executive Orders

Environmental regulations, laws, and executive orders that are applicable to this EA are listed in Section 1.5 of this EA.

3.2 Navigation and Vessel Movement

This section describes the existing navigational environment for commercial barges carrying petroleum and/or other hazardous cargo through Buzzards Bay prior to implementation of the 2007 Coast Guard Buzzards Bay Regulated Navigation Area (RNA) Amendments Final Rule. Included in this section is a discussion of the navigational requirements of commercial cargo vessels entering and transiting the bay.

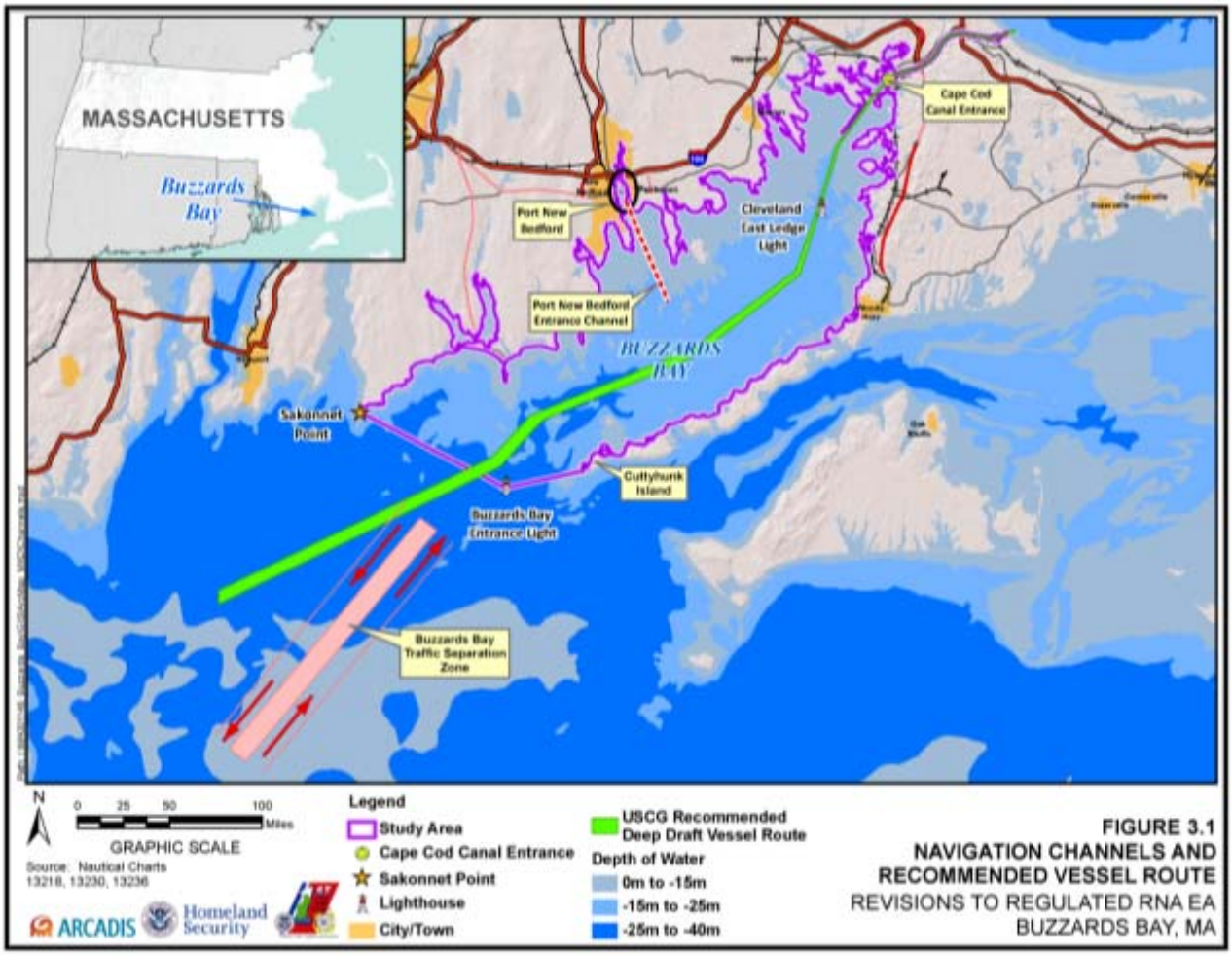
3.2.1 Definition of the Resource

The study area for navigation and vessel movement is Buzzards Bay and the Cape Cod Canal, as described in Section 1.3 and shown on Figure 3.1.

3.2.2 Affected Environment

Buzzards Bay is a major channel of maritime commerce in southeastern Massachusetts due to its connection to the Cape Cod Canal and the Port of New Bedford. Buzzards Bay is also home to a very active recreational boating community. The Cape Cod Canal is the widest sea level canal in the world and the Port of New Bedford is ranked first in the nation in revenue generated from fish landings (The Port of New Bedford 2012). Buzzards Bay is a toll-free waterway that maintains an active two-way (inbound/outbound) traffic scheme and is open for passage to all seaworthy vessels.

Figure 3.1.



The U.S. Coast Guard mandated that all single hull vessels be phased out by January 1, 2015, in accordance with the double hull requirement mandated by the Oil Pollution Act of 1990. As U.S. single hull oil vessels are eliminated, fewer double hull vessels are replacing them (USGAO, 2000). As the total number of oil-carrying vessel transits through Buzzards Bay declines, the ratio of single hull to double hull vessels continues to decrease, and the probability of a marine incident inevitably decreases. In 2002, there were nearly 10,000 commercial vessel transits and more than 1,200 tank barge transits through Buzzards Bay; an estimated 80 percent of those tank barges were single hull (TWG 2009). In 2006, approximately 560 oil-carrying barges transited Buzzards Bay, 50 percent of which were single hull barges (U.S. Army Corps of Engineers [USACE] 2012c).

While there are no mandatory nautical pilot requirements for commercial vessels entering and transiting Buzzards Bay, MOSPRA mandates that tank barges carrying 6,000 or more barrels of petroleum cargo must be provided a nautical pilot at the state's expense if requested by the tow barge master. The tow barge master must provide a minimum 24-hour advance notice of transit to be eligible for this accommodation (MGL 21M-9).

The U.S. Coast Guard has identified and recommended deep draft vessel routes for commercial vessels entering and departing Buzzards Bay, all of which have been overlaid onto Buzzards Bay

navigational charts (see Figure 3-1). These vessel routes are not mandatory, although deep draft commercial vessels, including tugs and barges (average draft of 9 to15 ft), are requested to follow the designated routes at the master's discretion. Currently, most if not all tank barges use the suggested routes voluntarily (Federal Register 2007). By not mandating their use, the U.S. Coast Guard affords commercial vessel masters the freedom to abandon the recommended routes if necessary to avoid the risk of collision or grounding.

As shown on Figure 3-1, the U.S. Coast Guard's recommended vessel route through Buzzards Bay maintains a buffer of approximately one to three nautical miles (nm) from shoal water and land formations on both sides of the route. The recommended route extends from the bay's west entrance to the Cleveland East Ledge Light, marking the start of the channel 4.5 nm in length leading to Cape Cod Canal.

The transit through Buzzards Bay to the Cape Cod Canal is approximately 25 to 30 nm from the west entrance of the bay to the west end of the Cape Cod Canal, depending on where a vessel enters the bay. Figure 3-1 shows the channel to the Canal. Use of the Canal saves mariners an average of 135 miles of travel that would otherwise be required to circumnavigate around Cape Cod. More than 20,000 vessels, of all types, transit the canal annually (USACE, 2012a).

Located on the southern Massachusetts coast, the Port of New Bedford, a designated Foreign Trade Zone, is a deep-water commercial port strategically positioned to support import and export trade. In 2006 there were 3,745 vessel transits through New Bedford Harbor, a decrease of about 14.5 percent since 2000 (HDR 2011). The Port of New Bedford Entrance Channel is approximately 15 nm from Buzzard Bay's west entrance (see Figure 3-1).

The pre-2007 RNA requires an escort tug for all single hull tank barges being towed through Buzzards Bay by a tug with single screw propulsion, regardless of cargo type. The Captain of the Port (COTP) may authorize an exemption from this requirement. By definition, an escort tug has twin-screw propulsion and twin engines. Consequently, the vast majority of tug and barge combinations transiting Buzzards Bay employ tugs with twin screws and twin engines, exempting them from employing an escort tug under this rule. The State of Massachusetts intends to partner with the U.S. Coast Guard to develop and implement a Vessel Traffic System (VTS) to increase navigational awareness and to help prevent collisions and groundings by providing information regarding ship locations and traffic. Upon entering the Buzzards Bay RNA, this system will require vessels to report their location and identity, and voyage plan (location, course, speed, destination, estimated time of arrival) for transiting the bay, and to maintain continuous contact with the VTS monitor throughout the transit. (MGL.21M.s.2). To date, VTS has not been implemented; however, the U.S. Coast Guard requires each vessel engaged in towing a tank barge in Buzzards Bay or the Cape Cod Canal to issue a security call on marine band or VHF channel.

3.3 Biological Resources

3.3.1 Definition of the Resource

This section describes the biological resources in the project area including aquatic communities, sensitive and protected habitats and threatened and endangered species in the proposed project location.

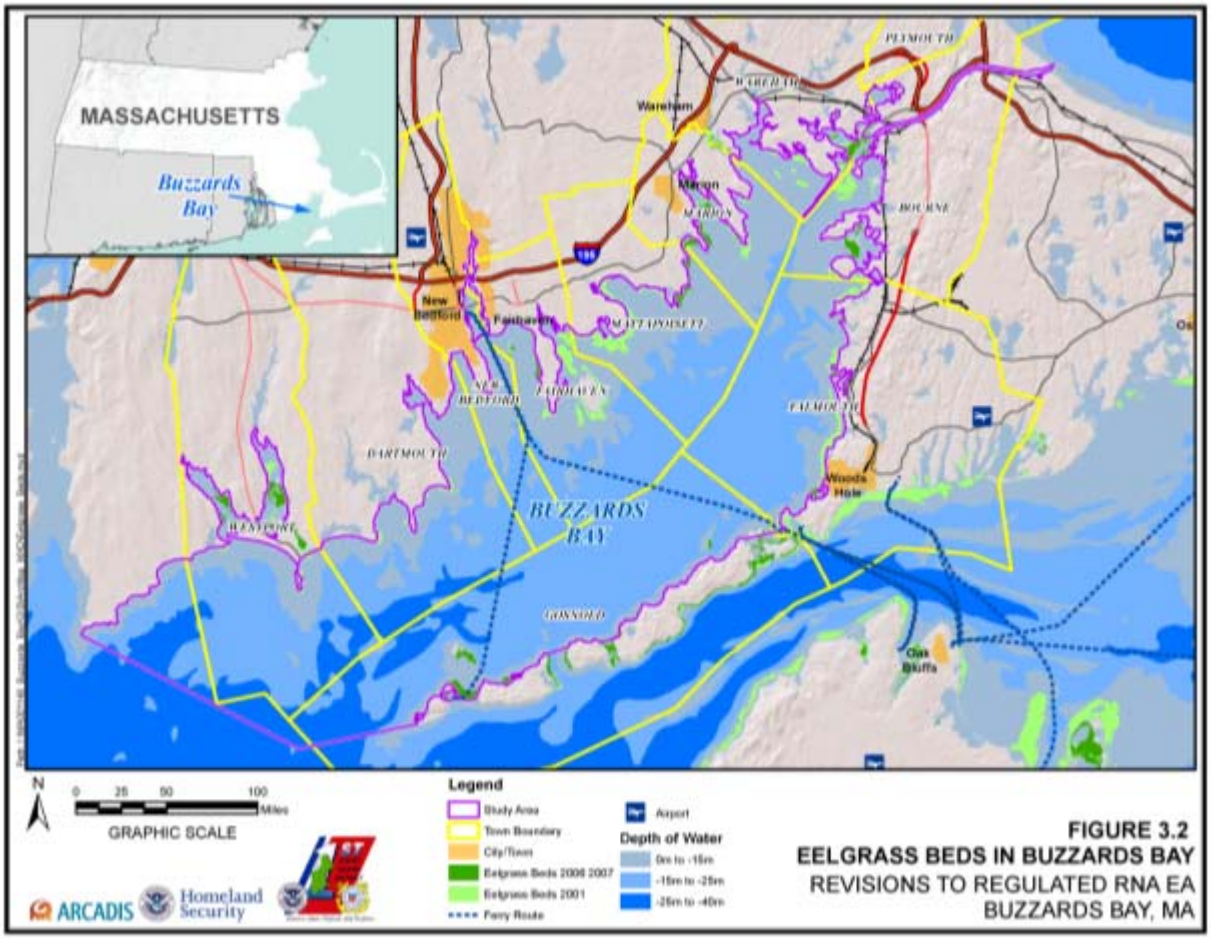
Buzzards Bay has 350 miles (563 kilometers [km]) of coastline that includes tidal wetlands or salt marshes, tidal flats, eelgrass beds and barrier beaches (Howes and Goehringer 1996). Congress designated Buzzards Bay as an "Estuary of National Significance" in 1985, one of only five estuaries in the U.S. so designated. It is also a "Massachusetts designated Ocean Sanctuary".

3.3.2 Eelgrass and Salt Marsh Habitats

Eelgrass and salt marshes are important habitats, nesting sites, food-production areas, and nurseries for a wide variety of species. Eelgrass (*Zostera marina*) is a perennial plant that grows in sands

and mud's in depths from low-tide to 20 feet (ft) (7 meters [m]) below sea level, depending on light penetration and absence of high energy wave action (BBNEP 2012). Eelgrass is found at the mouths of tidal creeks, salt ponds, and embayment's and has declined as a result of pollution and human disturbances (Figure 3.2 shows the location of eelgrass beds in Buzzards Bay). Salt marshes are usually located in the intertidal zone behind barrier beaches or in embayments with calm waters and along tidal rivers. They are dominated by the grasses *Spartina patens* and *Spartina alterniflora*.

Figure 3.2



3.3.3 Benthic Communities

Buzzards Bay has fine-grained sediments that occur throughout the deeper basins and troughs, as well as in near shore, shallow and protected areas such as salt marshes, eelgrass beds and tidal flats. Coarser-grained sands are found in shallow, higher energy areas, for example by barrier beaches, as well as offshore areas: (Howes and Goehringer 1996). The benthic community structure of Buzzards Bay depends primarily on the varying sediment characteristics, including grain size and organic content, of the bay bottom.

Shallow areas and eelgrass beds that are characterized by fine-grained and muddier sediments are dominated by deposit feeders and molluscs (e.g. the polychaete *Nephtys incisa*, the lamellibranch *Nucula proxima*, the molluscs *Crepidula fornicata* and *Crepidula plana*). These areas are protected and have lower energy inputs, allowing organic materials to settle out and provide a source of food to deposit feeders. Offshore, deeper areas of Buzzards Bay also have fine sediments and experience less wave

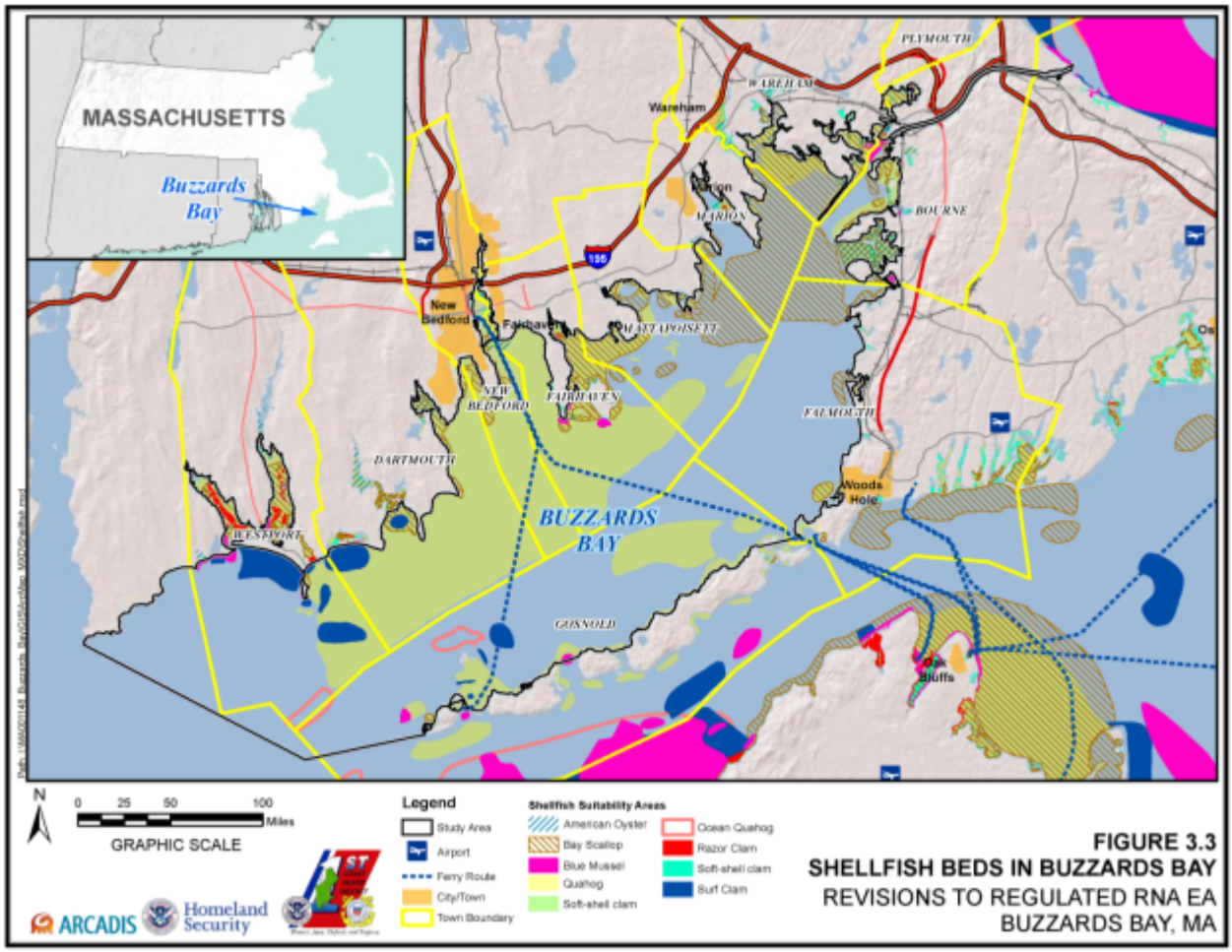
energy. Deeper, offshore benthic communities are comprised of molluscs such as *Nassarius trivittatus* and *Yoldia limatula*.

Coarser-grained, sandy sediments in offshore locations have benthic communities characterized by suspension feeders, carnivores, herbivores, or nonselective deposit feeders such as *Nassarius trivittatus, Chaetopleura apiculata,* and *Anachis avara* (Howes and Goehringer 1996).

3.3.4 Shellfish

Buzzards Bay supports populations of bay scallop (*Aequipecten irradians*), quahog (*Mercenaria mercenaria*), ocean quahog (also called black clam; *Arctica islandica*), soft-shelled clams (*Mya arenaria*), oyster (*Crassostrea virginica*), surf clam (*Spisula solida*), and lobster (*Homarus americanus*). Figure 3.3 shows locations of shellfish beds in Buzzards Bay.

Figure 3.3



Quahog in Buzzards Bay can grow in shallow or deep water in sandy to muddy bottoms where they burrow into the sediment and extend their siphons to feed (Howes and Goehringer 1996). They are found along almost the entire shoreline periphery of Buzzards Bay and, along the northern shore, extending south out into deeper water in the center of the bay. Ocean quahog (*A. islandica*) are generally found in muddy sands of deeper waters offshore, in the central-southwest portion of Buzzards Bay (Howes and Goehringer 1996).

Soft-shell clams occur in sandy or muddy, organic-rich sediments in calm embayment's and inlets and salt marsh creeks. They also burrow in sediments and extend their siphons into the water column to feed (Howes and Goehringer 1996). Soft-shell clam beds are located primarily at the northeastern end of Buzzards Bay towards the entrance to the Cape Cod Canal.

Bay scallop adults are mobile and grow quickly with a short spawning season that can result in fluctuations in their populations in different locations. Bay scallops are more common in shallow embayment's but can occur at depths from 15 to 39 feet (4.5 to 12 m). Juvenile scallops are sedentary and often attach to eelgrass beds, making the scallop population also susceptible to fluctuations in eelgrass habitat distributions (Howes and Goehringer 1996). Bay scallop beds are located at the northeastern end of Buzzards Bay towards the entrance to the Cape Cod Canal

Oysters are not as abundant as other bivalves in Buzzards Bay, but can be found along the bay's eastern shore. Oysters require hard substrates upon which to attach and grow and so are usually found on rocks and pilings (Howes and Goehringer 1996).

Although the lobster fishery is strong in some areas of Massachusetts, in Buzzards Bay, landings have declined by 50 percent since 1998 (MMFI 2012). In 2002, lobster landings in Buzzards Bay accounted for only 1.6 percent of the state total, but this still represented an annual retail value close to $817,000 and a valuable asset to local lobstermen (BBNEP 2012). Lobsters are found among rock or grass shelters during the day and emerge at dusk to feed on plants, bivalves, other lobsters, or fish. Smaller lobsters are found closer to shore while larger individuals are found in offshore water (Howes and Goehringer 1996).

3.3.5 Fisheries

3.3.5.1 Essential Fish Habitat

Buzzards Bay is home to a number of fish species and other marine life, including commercial and recreational species, bottom dwelling and free-swimming water column species and resident and migratory species (Carey and Haley 2002; Howes and Goehringer 1996). Buzzards Bay provides spawning, nursery and feeding habitat. Many of the fish in Buzzards Bay are migratory and move along the southeastern New England Atlantic coast and into the bay in spring and summer. Some species (e.g., bluefish, striped bass) continue their migration through the Cape Cod Canal into Cape Cod Bay. As a result, the nekton of Buzzards Bay is connected to a much larger population of fish and invertebrates. Marine habitat in Buzzards Bay provides EFH for the species listed in Table 3-1 at the indicated life stages. Habitats that are identified as EFH are protected under the Magnuson-Stevens Fishery Conservation and Management Act.

Table 3-1. Species and Applicable Life Stages for which EFH is Designated within Buzzards Bay

Species	Eggs	Larvae	Juveniles	Adults
Atlantic cod (*Gadus morhua*)	X	X	X	X
haddock *(Melanogrammus aeglefinus)*	X	X		
red hake *(Urophycis chuss)*		X	X	X
winter flounder *(Pseudopleuronectes americanus)*	X	X	X	X
windowpane flounder *(Scophthalmus aquosus)*	X	X	X	X
American plaice *(Hippoglossoides platessoides)*			X	X
Atlantic sea herring *(Clupea harengus)*			X	X
bluefish *(Pomatomus saltatrix)*			X	X
long-finned squid *(Loligo pealei)*			X	X
short-finned squid (*Illex illecebrosus*)			X	X
Atlantic butterfish *(Peprilus triacanthus)*	X	X	X	X
Atlantic mackerel *(Scomber scombrus)*	X	X	X	X
summer flounder *(Paralichthys dentatus)*	X	X	X	X

Species	Eggs	Larvae	Juveniles	Adults
scup *(Stenotomus chrysops)*	X	X	X	X
black sea bass *(Centropristis striata)*	n/a	X	X	X
surf clam *(Spisula solidissima)*	n/a	n/a	X	X
king mackerel *(Scomberomorus cavalla)*	X	X	X	X
Spanish mackerel *(Scomberomorus maculatus)*	X	X	X	X
cobia *(Rachycentron canadum)*	X	X	X	X
little skate (*Leucoraja erinacea*)			X	X
winter skate (*Leucoraja ocellata*)	X	X	X	X
sandbar shark *(Carcharinus plumbeus)*				X
bluefin tuna *(Thunnus thynnus)*			X	

3.3.5.2 Essential Fish Habitat Species

Atlantic cod (*Gadus morhua*) – Buzzards Bay is designated as EFH for all life stages of the Atlantic cod. In southern New England, Atlantic cod are common only in winter and spring in shallow waters less than 40 ft (12 m) deep, but are common year-round in deeper water. Eggs are common in winter and spring. Larvae are typically pelagic and occur in near-shore waters at depths of 98 to 230 ft (30 to 70 m) in the spring. Juveniles prefer bottom habitats at depths of 33 to 492 ft (10-150 m). Cod are observed spawning during fall, winter and early spring (NMFS/NERO 1998; Fahay et al. 1999).

Haddock (*Melanogrammus aeglefinus*) – Buzzards Bay is designated as EFH for the egg and larval stages of the haddock life cycle. Eggs occur between March and May at depths of 164 to 295 ft (50 to 90 m), while larvae are common between April and May at depths of 98-295 ft 30-90 m (NMFS/NERO 1998; Cargnelli et al. 1999b).

Red hake (*Urophycis chuss*) – Buzzards Bay is EFH for the larval, juvenile and adult life stages of the red hake. Larvae are pelagic, preferring water depths less than 656 ft (200 m) and are common during the months of September to October. Juveniles prefer bottom habitats and water depths less than 328 ft (100 m) and are present in spring and fall. Adults are found in bottom habitats at depths between 33 and 427 ft (10-130 m) and spawning takes place in June and July (NMFS/NERO 1998; Steimle et al. 1999c).

Winter flounder (*Pseudopleuronectes americanus*) – Buzzards Bay is designated as EFH for all life stages of winter flounder. Eggs are found in bottom habitats at depths less than 16 ft (5 m), while larvae inhabit open water and benthic habitats at depths less than 6 m (17 ft) and are most common in April and May. Juvenile and adults are found in bottom habitats near shore at depths less than 33 ft (10 m). Spawning occurs in February and March. Winter flounder undergo a seasonal inshore-offshore migration, and are more abundant in Buzzards Bay during spring and less abundant in summer and fall as they move offshore to cooler waters (NMFS/NERO 1998; Pereira et al.1999).

Windowpane flounder (*Scophthalmus aquosus*) – Buzzards Bay is designated as EFH for all life stages of windowpane flounder. Eggs are most abundant in July and August at depths less than 70 m (230 ft). Larvae are pelagic, occurring at water depths less than 230 ft (70 m) and most common in late summer and fall. Juveniles and adults are benthic and found at depths from 3 to 328 ft (1to 100 m). Spawning occurs in spring, summer and fall (NMFS/NERO 1998; Chang et al. 1999).

American plaice (*Hippoglossoides platessoides*) – Buzzards Bay is designated as EFH for the juvenile and adult stages of the American plaice life cycle. Juveniles and adults are found in bottom habitat in water depth between 148 to 574 ft (45-175 m). Spawning occurs from March to June in shallow waters less than 90 m (295 ft) deep (NMFS/NERO 1998; Johnson et al. 1999).

Atlantic sea herring (*Clupea harengus*) – Buzzards Bay is designated as EFH for the juvenile and adult stages of the Atlantic sea herring life cycle. Juveniles and adults inhabit open and bottom habitats at depths between 49 to 427 ft (15to 130 m). Atlantic sea herring are more common in spring and fall in Buzzards Bay because they spawn outside of the bay from July to November (NMFS/NERO 1998; Reid et al. 1999).

Bluefish (*Pomatomus saltatrix*) – Buzzards Bay is designated as EFH for the juvenile and adult stages of the bluefish life cycle. Bluefish are migratory, appearing in Buzzards Bay from May to October, before returning to warmer waters. Juveniles prefer estuaries and shallow waters. Adults prefer near-shore open waters (NMFS/NERO 1998; Fahay et al. 1999).

Long-finned squid (*Loligo pealei*) – Buzzards Bay is designated as EFH for the juvenile and adult stages of the long-finned squid life cycle. Juveniles and adults are found in open water. Juveniles are found from shore to depths of 700 ft (213 m) while adults are found from shore to 1,000 ft (305 m) (NMFS/NERO 1998; Cargnelli et al. 1999).

Short-finned squid (*Illex illecebrosus*) - Buzzards Bay is designated as EFH for the juvenile and adult stages of the short-finned squid life cycle. Both juveniles and adults are pelagic and found from shore to depths of 600 ft (183 m) (NMFS/NERO 1998).

Atlantic butterfish (*Peprilus triacanthus*) – Buzzards Bay is designated as EFH for all four stages of the Atlantic butterfish life cycle. Eggs are found from brackish estuarine water to coastal embayments in depths from shore to 6,000 ft (1,829 m). Larvae inhabit open waters usually associated with floating vegetation and are most frequently observed in July and August. Juveniles inhabit open waters from 33 to 1,082 ft (10 to 33 m) in coastal bays and estuaries and are generally present from spring to fall (NMFS/NERO 1998; Cross et al. 1999).

Atlantic mackerel (*Scomber scombrus*) – Buzzards Bay is designated as EFH for all four stages of the Atlantic mackerel life cycle. Eggs are found near shore and offshore at depths up to 50 ft (15 m). Larvae are found near and offshore at depths of 33 to 425 ft (10 to 130 m). Juveniles are found near and offshore at depths up to 1,500 ft (320 m) and tend to be most common from May to August. Adults are found near and offshore at depths up to 1,250 ft (381 m) and are found in greatest densities in late winter and early spring (NMFS/NERO 1998; Studholme et al. 1999).

Summer flounder (*Paralichthys dentatus*) – Buzzards Bay is designated as EFH for all four stages of the summer flounder life cycle. Summer flounder eggs are present from October to May at depths from 98 to 361 ft (30 to 110 m). Larvae are found generally offshore at depths of 33 to 230 ft (10-70 m) but migrate inshore to undergo metamorphosis. Larvae are most common from October to January. Juveniles prefer shallow (less than 4.9 ft [1.5 m]) waters in marsh creeks, tidal flats and channels. Adults are found in bottom habitats with submerged aquatic vegetation both inshore and offshore depending on water temperature (NMFS/NERO 1998; Packer et al. 1999).

Scup (*Stenotomus chrysops*) – Buzzards Bay is designated as EFH for all four stages of the scup life cycle. Scup are primarily bottom feeders and spawn in inshore regions in late spring. They are found in Buzzards Bay during summer and early fall, and migrate to deeper warmer waters in winter (Howes and Goehringer 1996). Both eggs and larvae tend to be found in estuaries from May to August in southern New England. Juveniles are found in estuaries and bays with sandy, muddy bottoms and eelgrass beds. Adults are found in estuaries at depths of 7 to 125 ft (2-38 m) (NMFS/NERO 1998; Steimle, et al., 1999b).

Black sea bass (*Centropristis striata*) – Buzzards Bay is designated as EFH for the larvae, juvenile, and adult stages of the black sea bass life cycle. Larvae are found at depths less than 100 m (328 ft) in coastal areas. Juveniles are found in estuarine and coastal areas and near salt marsh areas at

depths less than 125 ft (38 m). Adults black sea bass are typically present in estuarine waters inshore and most common from May to October (NMFS/NERO 1998; (Steimle et al. 1999a).

Surf clam (*Spisula solidissima*) – Buzzards Bay is designated as EFH for the juvenile, and adult stages of the surf clam life cycle. Both juvenile and adult surf clams are found in medium to fine-grained sands at depths from 26 to 216 ft (8 to 66 m). Adults spawn during summer (NMFS/NERO 1998; Cargnelli et al. 1999).

King mackerel (*Scomberomorus cavalla*) – Buzzards Bay is designated as EFH for all four stages of the king mackerel life cycle. The northern range of the king mackerel is southern Massachusetts and it is generally absent from Buzzards Bay and Cape Cod north (NMFS/NERO 1998).

Spanish mackerel (*Scomberomorus maculatus*) – Buzzards Bay is designated as EFH for all four stages of the Spanish mackerel life cycle. Although the northern range of this species is Cape Cod, Spanish mackerel are rarely reported north of the Chesapeake Bay (Robins and Ray 1986). They spawn off the coast from spring to summer (NMFS/NERO 1998).

Cobia (*Rachycentron canadum*) – Buzzards Bay is designated as EFH for all four stages of the cobia life cycle. Cobia are coastal pelagics and reach the northern part of their range in southern Massachusetts (Robins and Ray 1986). Cobia are generally absent from northern Massachusetts waters and points north of Cape Cod (NMFS/NERO 1998).

Little skate (*Leucoraja erinacea*) – Buzzards Bay is designated as EFH for the juvenile and adult stages of the little skate life cycle. The little skate is found in depths up to 295 ft (90 m) and is found inshore during the winter and spring and offshore during summer and fall. They prefer sand, pebbly or muddy bottoms (NMFS/NERO 1998).

Winter skate (*Leucoraja ocellata*) – Buzzards Bay is designated as EFH for all four stages of the winter skate life cycle. Winter skate is found on sandy and gravelly bottoms up to 36 ft (11 m) in depth (NMFS/NERO 1998).

Sandbar shark (*Carcharinus plumbeus*) – Buzzards Bay is designated as EFH for the adult sandbar shark. Adult sandbar shark are found in shallow, muddy coastal waters up to 165 ft (50 m) in depth. This species migrates south to warmer waters in winter. Southern New England is the northern limit of the sandbar shark's range and is not likely that it is abundant in Buzzards Bay (NMFS/NERO 1998).

Bluefin tuna (*Thunnus thynnus*) - Buzzards Bay is designated as EFH for the juvenile blue fin tuna. Juvenile bluefin tuna are found in all coastal pelagic waters from 82 to 656 ft (25-200 m) in depth (NMFS/NERO 1998).

3.3.6 Birds

Buzzards Bay provides important foraging and nesting habitats, including open water, embayments, beaches, eelgrass beds, and salt marshes, for numerous migratory and resident birds. Several species nest and forage within salt marshes and along rocky or sandy beaches. Small, rocky islands within Buzzards Bay serve as nesting grounds for several species. Open water and eelgrass beds are important habitats for bird prey species including invertebrates and fish.

3.3.7 Protected Species

3.3.7.1 Federally Listed Threatened and Endangered Species

A list of federal threatened and endangered species that potentially occur in Buzzards Bay and the Cape Cod Canal and their status is provided in Table 3-2. The table includes species listed by the USFWS and the NMFS. The species are discussed in more detail following the table.

Table 3-2. Federal and State Listed Threatened and Endangered Species with the Potential to Occur in the Project Area

Common Name	Scientific Name	Federal Status*	State Status****	Agency Regulatory Authority
Reptiles				
Loggerhead Sea Turtle	*Caretta caretta*	T	ST	NMFS
Kemp's Ridley Sea Turtle	*Lepidochelys kempii*	E	SE	NMFS
Leatherback Sea Turtle	*Dermochelys coriacea*	E	SE	NMFS
Green Sea Turtle	*Chelonia mydas*	T	ST	NMFS
Diamond-backed Terrapin	*Malaclemys terrapin*		ST	MDFW
Birds				
Pied-Billed Grebe	*Podilymbus podiceps*		SE	MDFW
American Bittern	*Botaurus lentiginosus*		SE	MDFW
Least Bittern	*Ixobrychus exilis*		SE	MDFW
Bald Eagle	*Haliaeetus leucocephalus*	**	SE	MDFW
King Rail	*Rallus elegans*		ST	MDFW
Common Moorhen	*Gallinula chloropus*		SC	MDFW
Piping Plover	*Charadrius melodus*	T	ST	USFWS
Roseate Tern	*Sterna dougallii*	E	SE	MDFW, USFWS
Common Tern	*Sterna hirundo*		SC	MDFW
Arctic Tern	*Sterna paradisaea*		SC	MDFW
Least Tern	*Sternula antillarum*	E***	SC	MDFW, USFWS
Red knot	*Calidris canutus rufa*	C		USFWS
Mammals				
North Atlantic Right Whale	*Eubalaena glacialis*	E	SE	NMFS

Notes:

***Federal Designations:**

E - Federal Listed Endangered; T - Federal Listed Threatened: C - Candidate

**Bald eagle is delisted. Nesting bald eagles and their nests are protected by law under the Bald and Golden Eagle Act.

***Interior U.S. population only.

****State Designations:**

***Massachusetts Division of Fisheries and Wildlife

SE - State Listed Endangered

ST - State Listed Threatened.

SC - State Listed Special Concern

Sources: USFWS 2012; NOAA/NMFS 2011; MDMF 2008.

Bald eagle (*Haliaeetus leucocephalus*) – The bald eagle is listed as endangered in Massachusetts, but delisted under the ESA; however, nesting bald eagles and their nests are protected under the Bald and Golden Eagle Act. Bald eagle nests have been recorded in Plymouth County, which borders Buzzards Bay to the north, and bald eagles overwinter along the Buzzards Bay coastline (MDFW 2008).

Piping plover (*Charadrius melodus*) – The piping plover nests on sandy coastal beaches and dunes, between the high tide line and the foot of coastal dunes of all counties bordering Buzzards Bay (MDFW 2009). They feed on marine invertebrates found along the rack line and tidal flats at low tide.

Roseate tern (*Sterna dougallii*) – The roseate tern nests in colonies on sandy or rocky islands and occasionally on barrier beaches in dense vegetation among rocks and boulders. They forage for small fish and crustaceans over sandbars, inlets and shoals and can forage up to 19 miles (30 km) from the breeding colony. Approximately 60 percent of the northeast population of roseate terns is located in just two colonies found in Buzzards Bay (MDFW 2012).

Loggerhead sea turtle (*Caretta caretta*) – Loggerhead sea turtles, especially pelagic juveniles, forage on vegetation and invertebrates in nearshore coastal areas and estuaries (NOAA/NMFS 2011). Loggerhead sea turtles are occasionally sighted or found stranded in the bay every year, but do not nest in Buzzards Bay (NMFS 2011).

Kemp's ridley sea turtle (*Lepidochelys kempii*) – The Kemp's ridley turtles is the most critically endangered sea turtle species. They are found in shallow coastal waters and sea grass beds as well as open ocean, usually in the Gulf of Mexico, but juveniles do occur during the summer off the coast of Massachusetts. Juvenile Kemp's ridleys are occasionally seen foraging in Buzzards Bay (Morreale and Standora 1989; Buzzards Bay Project National Estuary Program 1991). Kemp's ridley sea turtles do not nest in Buzzards Bay.

Leatherback sea turtle (*Dermochelys coriacea*) – Leatherback sea turtles nest in the tropics and move north to forage. They are occasionally sighted and stranded in Buzzards Bay (Shoop and Kenney 1992; Buzzards Bay National Estuary Program 1991). In August 2008, more than 100 sightings of leatherback sea turtles were reported in southeast Massachusetts. Leatherback sea turtles do not nest in Buzzards Bay.

Green sea turtle (*Chelonia mydas*) – Green sea turtles are herbivorous and forage in shallow coastal areas. Their range extends into the coastal waters of Massachusetts (NMFS 2011); however, they are considered an 'oceanic straggler in southern New England' by the USFWS (USFWS 2012). In comparison to other sea turtle species, there have been minimal recordings of the green sea turtle as far north as Cape Cod. Green turtles have the potential to occur, but do not nest in Buzzards Bay.

Red knot (*Calidris canutus rufa*) – The red knot is currently a candidate to be listed as a federal threatened and endangered species. The *rufa* population of red knot is a shorebird that breeds in the central Canadian Arctic and migrates primarily along the Atlantic coast of North America (USFWS 2007). Buzzards Bay is an important migration stopover location where red knot forage on sandy beaches, tidal mudflats, salt marshes, and peat banks for bivalves, gastropods, and crustaceans (USFWS 2007).

North Atlantic right whale (*Eubaleena glacialis*) – Rare sightings (one sighting reported in 2008 and one in 2012) of the federally endangered North Atlantic right whale occur in Buzzards Bay and the Cape Cod Canal. When sightings are reported, the U.S. Coast Guard restricts boat traffic and escorts the whales until they leave the area (Bragg 2012).

3.3.7.2 State Listed Threatened, Endangered, and Special Concern Species

Each state maintains a list of species that are of concern within that state. These lists generally include species on the federal list as well as species that are considered endangered or threatened only

at the state level. In addition to the federally listed species, Massachusetts includes the following species that occur in Buzzards Bay on the state list of endangered, threatened or special concern species: pied-billed grebe, American bittern, least bittern, king rail, common moorhen, common tern, arctic tern, least tern, and diamond-backed terrapin.

3.3.8 Migratory Birds

Buzzards Bay encompasses estuarine, salt marsh, and beach habitats that are important areas for some migratory bird species protected under the MBTA. Species covered under the MBTA that occur in Buzzards Bay are: red-throated loon, common loon, pied-billed grebe, horned grebe, red-necked grebe, double-crested cormorant, American bittern, least bittern, great blue heron, great egret, snowy egret, little blue heron, tricolored heron, green heron, black-crowned night-heron, yellow-crowned night-heron, glossy ibis, brant, Canada goose, green-winged teal, American black duck, mallard, blue-winged teal, northern shoveler, American widgeon, canvasback, redhead, ring-necked duck, greater scaup, lesser scaup, common eider, king eider, harlequin duck, long-tailed duck, black scoter, surf scoter, white-winged scoter, common goldeneye, Barrow's goldeneye, bufflehead, hooded merganser, common merganser, red-breasted merganser, ruddy duck, black rail, clapper rail, king rail, Virginia rail, sora, American coot, American oystercatcher, greater yellowlegs, willet, spotted sandpiper, ruddy turnstone, red knot, sanderling, purple sandpiper, dunlin, killdeer, laughing gull, black-headed gull, Bonaparte's gull, ring-billed gull, herring gull, Iceland gull, lesser black-backed gull, glaucous gull, great black-backed gull, black skimmer, belted kingfisher, American crow, salt marsh sharp-tailed sparrow, Nelson's sharp-tailed sparrow, and seaside sparrow.

3.4 Socioeconomics

3.4.1 Definition of the Resource

This section focuses on the demographic and socioeconomic characteristics of coastal populations and municipalities that surround Buzzards Bay.

3.4.2 Affected Environment

3.4.2.1 Population

Four Massachusetts counties encompassing 11 towns surround the bay on the east, west and north. Municipal boundaries are shown on Figure 1-1 in Section 1.3. Table 3-3 lists Massachusetts counties and towns that border the bay along with their 2009 year-round residential populations.

Table 3-3. Counties and Towns Bordering Buzzards Bay

County/Town or City	2009 Population
Barnstable County	
Bourne	19,387
Falmouth	32,817
Bristol County	
Dartmouth	4,421
Fairhaven	16,097
New Bedford	91,053
Westport	15,529
Dukes County	
Gosnold	86
Plymouth County	
Marion	5,182
Mattapoisett	6,519
Plymouth	56,842
Wareham	21,348

Source: US Census Bureau, 2012.

In addition to the year-round residential population of the municipalities identified in Table 3-3, each also experiences a substantial increase in seasonal and day visitors during the summer months. For example, in 2004, the town of Bourne in Barnstable County had a year-round population of 19,516 and an estimated seasonal population of 40,000 (Bourne. 2009). Although seasonal population estimates are not available for all of the towns bordering Buzzards Bay, the size of the seasonal/recreational population compared to the permanent year-round population can be estimated based on the number of seasonal/recreational housing units in each town. Table 3-4 lists seasonal housing as a percentage of the total housing units in each town/city. As noted in the table, with the exception of the City of New Bedford, seasonal/recreational use housing represents more than 50 percent of housing in all of the towns bordering Buzzards Bay, and eight of the eleven towns bordering Buzzards Bay contain over 70 percent seasonal/recreational use housing.

Table 3-4. Seasonal Housing as a Percentage of Total Housing Units

County/Town or City	Total Housing Units	Percent Seasonal / Recreation / Occasional Use
Barnstable County		
Bourne	10,805	75.6%
Falmouth	21,970	89.9%
Bristol County		
Dartmouth	12,435	55.1%
Fairhaven	7,475	58.8%
New Bedford	42,933	2.8%
Westport	7,193	74.7%
Dukes County		
Gosnold	215	98.9%
Plymouth County		
Marion	2,445	78.5%
Mattapoisett	3.262	84.0%
Plymouth	24,800	71.2%
Wareham	12,256	74.6%

Source: UMass Donahue Institute. 2012.

3.4.2.2 Recreation

The Buzzards Bay coastline stretches over 350 miles (563 km) including inner harbors, bayward facing portions of the Elizabeth Islands, and the Cape Cod Canal. The bay and its shoreline provide a haven for tourism and recreation to both day users and longer-term visitors. The visitors support local businesses and the local economy by purchasing goods and services during their visits. The economic impact of tourism on Buzzards Bay counties is substantial.

Approximately 13.4 miles of public beaches (municipal and state owned) and 31.9 miles of "semi-public" beaches are located on Buzzards Bay (BBNEP 2011a). The balance of the shoreline is privately owned. Beaches owned by cities, towns, and the state are open to any member of the public. However, beach parking stickers are required to park at municipal beach parking lots, generally with different rates for residents and non-residents. Demerest Lloyd State Park and Horseneck Beach State Reservation each charge a single rate for parking. Table 3-5 lists beaches that are located on the bay. In addition to bay beaches, USACE maintains 10 recreation areas along the Cape Cod Canal that include a variety of recreation amenities including picnic areas, playgrounds, camping facilities, trails and scenic overlooks of the canal (USACE. 2012a).

Table 3-5. Beaches Located on Buzzards Bay

Town / Beach	*Town* / Beach	*Town* / Beach
Bourne	***Falmouth***	***New Bedford***
Barlows Landing Beach	Black Beach	Clarks Cove
Bennets Neck Beaches	Bristol Beach	Davey's Locker Beach
Electric Avenue Beach	Cape Codder Hotel Beach	East Beach
Eustis Beach	Chapaquoit Beach	J. Beach
Gray Gables Beach	Hamlins Point Bach	Kid's Beach
Hen Cove North	Magansett Beach	South 400 Beach
Hen Cove West	Menauhant Beach	South Pier Beach
Mashnee Island Beach	Mill Road Beach	Squid Beach
Merriam Beach	Old Silver Beach	Taber Beach
Monument Beach	Racing Beach	Tower Beach
Patuissett Beach	Saconessett Hills Beach	Turtle Park Beach
Phinneys Harbor Beach	Stoney Beach	West Beach
Phinneys Point Beach	Surf Drive Beach	***Wareham***
Sagamore Beach	The Knob	Briarwod Beach
Scenic Park Beach	Wood Neck Beach	Hamilton Beach
Squeteaque Harbor Beach	Wood Neck River	Independence Point Beach
Dartmouth	***Marion***	Indian Heights Beach
Anthony's Beach	Dexter Beach	Little Harbor Beach
Apponagansett Town Beach	Hammer's Cove Beach	Minot Forest Beach
Barney's Joy Beach	Island Wharf Beach	Onset Beach
Bay View Beach	Piney Point Beach Club	Parkwood Beach
Demarest Lloyd State Beach	Planting Island Beach	Pinehurst Beach
Hidden Bay Beach	Silver Shell Beach	Riverside Beach
Jone's Park Town Beach	Tabor Academy Beach	Sandlewood Beach
Little River Beach	Town Beach	Shangrila Beach
Mishaum Point Beach	***Mattapoisett***	Shell Point Beach
Moses Smith Creek Beach	Antassawomack Beach	Sunset Beach
Nonquitt	Aucoot Beach	Swifts Neck Beach
Round Hill Town Beach	Brant Beach	**Westport**
Round Hill Community Beach	Crescent Beach	East Beach
Salter's Point Beach	Harbor Beach	Goosberry Neck Beach
Shore Acres Beach	Hollywoods Beach	Horseneck Beach
Fairhaven	Leisure Shores Beach	Horseneck Point Beach Club
Causeway Road Beach	Mattapoisett Shores Beach	Town Beach
Fort Phoenix State Beach	Nasketucket Reservation Beach	Cherry and Webb Beach
Fort Phoenix Town Beach	Ned's Point Beach	Knubble Rock Beach Club
Knollmere Beach	Peases Point Beach	Spindle Rock Beach Club
Popes Beach	Point Connett Beach	
Sunrise Beach	Town Beach	
West Island Causeway Beach		
West Island Town Beach		

Sources: www. Buzzards bay.org/images/beaches.gif
Massachusetts Department of Public Health. 2002.

In addition to beaches, numerous public marinas and yacht clubs are located throughout Buzzards Bay that provide slips and moorings to residents as well as to recreational boaters needing an overnight mooring as they transit through the area. More than 12,000 boats can be found on Buzzards Bay during peak summertime holidays (BBNEP 2011a).

Sailboat races are held in the bay each summer by Buzzards Bay yacht and sailing clubs. The largest of the races is the Buzzards Bay Regatta. Initially held in 1972, today the Buzzards Bay Regatta is the largest multi-class regatta in the United States with more than 450 boats and 1200 sailors across 15 different classes. In addition to the sailors, 30 committee chairs are joined by over 200 volunteers during regatta weekend. (Buzzards Bay Regatta. 2012).

Other events that draw tourists to the area include annual town festivals that focus on the waterfront, such as the New Bedford Working Waterfront Festival and the Bourne Scallop Festival. These events attract visitors from throughout the region.

Recreational fishing in Buzzards Bay provides another source of income to area towns and businesses. Recreational fishermen include shore-based recreational anglers and shellfish gatherers' vessel-based anglers, lobster and fish potters, shellfish gatherers, and participants in charter boat excursions. Recreational fishing is primarily focused in the shallow waters of Buzzards' Bay. Fishing trips often last from several days to a week or more and anglers generally stay in local hotels and use local amenities including bait and tackle shops, local restaurants and other tourist attractions. (Colburn, L., et al. 2002.)

In excess of 25,000 motor vessels are estimated to be moored in the bay with an additional 10,000 to 15,000 tailored in annually, a substantial number of which are used for recreational fishing. The number of people who use the bay for recreational fishing is hard to estimate since licensing is not required for saltwater recreational fishing in Massachusetts. Assuming two to three anglers per boat, as many as 50,000 to 75,000 individuals may use Buzzards Bay annually for recreational fishing. (Colburn, L., D.A. Carey and N. Haley 2002.)

Although licenses are not required for saltwater fishing in Massachusetts, licenses are required for recreational and commercial shellfishing. Shellfish licenses are issued by each municipality for areas within the town's boundaries. More than 12,800 recreational permits are issued annually (BBNEP 2012). Most shellfishing occurs close to shore, particularly in the harbors. Figure 3-3 shows the locations of shellfish beds in Buzzards Bay.

3.4.2.3 Employment and Economy

Tourism is the largest source of business revenue in the Buzzards Bay region (Falmouth 2005), and the most important industry in southeastern Massachusetts (BBNEP 2011a). Table 3-6 identifies the impact of domestic travel on Southeastern Massachusetts.

Table 3-6. 2004 Domestic Travel Impact on Southeastern Massachusetts

County	Expenditures ($ Millions)	Payroll ($ Millions)	Employment (Thousands)	State Tax Receipts ($ Millions)	Local Tax Receipts ($ Millions)
Barnstable	$745.61	$207.92	9.28	$32.54	$43.12
Bristol	$311.64	$71.93	3.00	$17.24	$5.88
Plymouth	$384.19	$87.60	3.65	$19.44	$17.05
Subtotal	$1441.44	$367.45	15.93	$69.22	$66.05
State totals	$10,975.45	$2,845.83	110.47	$451.59	$268.50

Source: BBNEP 2011a.

Buzzards Bay beaches are the focus of much of the tourist and recreational interest. Table 3-7 lists employment by industry sector in each town bordering Buzzards Bay and the Cape Cod Canal.

Table 3-7. 2010 Average Monthly Employment by Industry

AICS Code	Employment Sector	Bourne	Dartmouth	Fairhaven	Falmouth	Gosnold	Marion	Mattapoisett	New Bedford	Plymouth	Wareham	Westport	Wrentham
	Total all industries	77,273	15,446	6,119	14,151	41	2,126	1,649	35,815	22,697	8,557	3,346	6,177
11	**Agriculture, Forestry, Fishing & Hunting**	52	NA	141	25	NA	NA	NA	1,098	25	157	102	NA
1141	Fishing	NA	NA	138	0	NA	0	0	1,091	0	0	25	NA
23	**Construction**	422	466	258	575	NA	494	71	788	885	148	590	231
31-33	**Manufacturing**	335	886	848	490	NA	407	87	6,590	1,184	602	119	330
22	**Utilities**	36	NA	NA	NA	NA	0	0	315	862	39	0	0
42	**Wholesale Trade**	520	527	141	270	NA	40	168	1,588	286	245	154	110
44-45	**Retail Trade**	893	3,890	1,182	1,920	NA	112	128	2,892	3,614	2,184	419	2,264
51	**Information**	240	88	144	182	NA	11	0	477	464	113	NA	33
52	**Finance and Insurance**	101	187	192	251	NA	56	38	809	559	99	84	40
53	**Real Estate & Rental & Leasing**	100	103	12	103	NA	9	40	360	183	64	23	7
531	Real Estate	74	84	NA	65	NA	9	24	266	116	40	9	NA
532	Rental & Leasing Services	24	19	NA	37	NA	NA	NA	94	67	24	NA	NA
54, 56	**Professional & Technical Services**	699	582	287	2,330	NA	192	97	2,681	1,754	648	204	495
61, 62	**Education & Health Services**	1,846	5,049	1,525	3,807	NA	729	400	2,727	4,912	1,872	454	1,600
71, 72	**Leisure & Hospitality**	1,090	2,324	937	2,304	NA	301	350	2,713	3,641	1,172	511	706
71	Arts, Entertainment, & Recreation	195	350	44	413	NA	162	118	350	759	85	76	NA
72	Accommodation & Food Services	896	1,975	769	1,891	NA	139	232	2,363	2,882	1,087	436	697
81	**Other Services**	301	645	293	508	NA	88	162	2,157	798	423	222	108
92	**Public Administration**	638	594	171	1,385	NA	NA	NA	1,975	1,689	382	NA	135

Notes:
Subsets of major labor categories are indented.
NA = Not available or none

Source: Massachusetts Department of Labor 2012.

As noted in Table 3-7, with the exception of the City of New Bedford, a large percentage of employment in each of the Buzzards Bay towns is in the hospitality and retail trade sectors, which provide services to both local residents as well as the thousands of people that visit the area each year. In particular, excluding New Bedford, the Leisure and Hospitality sector provides approximately one third of all employment opportunities in Buzzards Bay communities.

Gillnetting, trawling, purse seining and haul seining for finfish, as well as the use of mobile gear (otter and beam trawls, scallop dredges, bottom pair trawls, Scottish/Danish seines and pair seines) have been prohibited in Buzzards Bay since the late 1800s. Small mesh nets for shrimp are also prohibited. Hook and line is allowed with some seasonal restrictions depending on fish species. (MDMF 2002). Although the Port of New Bedford generates more than $1 billion annually in economic activity associated with the fishing industry (Port of New Bedford 2012), the fishing fleet that sails out of New Bedford depends for the most part on deeper and colder waters outside of the bay for its catch.

Buzzards Bay contains shellfish resources that support an approximately $4 million shellfish industry and represents about 25 percent of Massachusetts' total shellfish industry. Species caught in the bay include soft-shelled clams, quahogs, scallops, oysters, and lobster. More than 500 commercial permits are sold annually by Buzzards Bay communities (BBNEP 2012). Most shellfishing occurs close to shore, particularly in the harbors. Figure 3-3 shows the location of shellfish beds in Buzzards Bay.

3.4.2.4 Commercial Shipping

Buzzards Bay is part of the Atlantic Intracoastal Waterway system and is connected to Cape Cod Bay by the Cape Cod Canal. Use of the Cape Cod Canal saves mariners an average of 135 miles of coastwise travel that would otherwise be required to circumnavigate around Cape Cod. Vessels up to 825 feet in length can use the canal. The Canal has an authorized depth of 32 feet at mean low water (MLW).

Commercial shipping occurs in Buzzards Bay both to access the port of New Bedford, as well as to access ports north and south of the bay via the Cape Cod Canal. In 2002 there were approximately 10,000 commercial vessel transits and more than 1,200 tank barge transits in Buzzards Bay (USCG 2007a). In 2007, 1,049 non-self-propelled tanker barges carried liquids through the Cape Cod Canal (USACE 2012c), which included a monthly average of approximately 540,000 tons of petroleum (USACE 2012c). Navigation and traffic within Buzzards Bay and the Cape Cod Canal are discussed in Section 3.2.

4 ENVIRONMENTAL CONSEQUENCES

This section describes the potential impacts and consequences, beneficial and adverse, of implementation of each of the alternatives. It is organized by discussion of the effects, in terms of context and intensity on the resources or issues potentially affected by each alternative. The resources and issues considered include: Navigation and Vessel Movement, Biological Resources, Socioeconomics, and Public Health and Safety.

According to MADEP, ninety-eight percent of the threat of exposure to an oil spill in Buzzards Bay is attributed to the number of vessels and the volume of oil transiting Buzzards Bay and the Cape Cod Canal (MDEP 2009). In 2005, 1,189 cargo vessels passed through the Cape Cod Canal. Among those vessels were tankers and tank barges that transported 8,534 short tons or roughly 2.1 billion gallons of petroleum products, equaling 78 percent of the total commodity tonnage passing through the canal. During that same year, vessels transported 235 tons or 75 million gallons of petroleum products in and out of the Port of New Bedford. (BBNEP 2011a.)

The main objective of this EA is to analyze and compare alternatives that were considered when the 1996 RNA was being amended in 2007 to further reduce the risk to Buzzards Bay from oil spills and to provide the rationale used by the U.S. Coast Guard when making its informed decision on which alternative would provide appropriate protection when balanced with other pertinent issues that must be taken into account. Table 4-1 lists past oil spills in Buzzards Bay.

Table 4-1. Past Oil Spills in Buzzards Bay

Date	Location	Type	Volume (gallons)	Comments
1940s	Western Buzzards Bay, Westport (at Hen and Chicks?)	No. 2 Fuel Oil	unknown	
1963	Near Nyes Neck, North Falmouth	No. 2 Fuel Oil	unknown	
16-Sep-69	Fassets Point, West Falmouth	No. 2 Fuel Oil	189,000	***Florida*** Fuel Barge grounded. Final estimate was 4,500 barrels spilled.
9-Oct-74	Cleveland Ledge (near canal entrance)	No. 2 Fuel Oil	11,000 to 37,000	***Bouchard 65*** barge grounded. Oil came ashore in North Falmouth and Bourne.
28-Jan-77	Cleveland Ledge	No. 2 Fuel Oil	81,144	***Bouchard 65*** barge grounded. Oil on iced-over bay, some burned. Final estimate was 1,932
10-Jun-90	Cleveland Ledge	No. 6 Fuel Oil	7,500	***Bermuda Star*** cruise ship grounded
18-Jun-90	Cleveland Ledge	Diesel Oil	100 or 200	***Bouchard 145*** fuel barge grounded.
7-Aug-92	Sow and Pigs Reef, Cuttyhunk	No. 6 Fuel Oil	50	***Queen Elizabeth II*** cruise ship grounded. Residual from empty fuel tank that was ruptured.
27-Apr-03	Rock reef west of green can #1 BB entrance, Westport	No. 6 Fuel Oil	98,000 (best estimate final)	***Bouchard No. 120*** fuel barge struck rocks.
Smaller spills of gasoline and fuel oil have occurred every few years in Buzzards Bay or in the Cape Cod Canal.				

Source: BBNEP 2011b.

Impacts were evaluated in terms of context (local or regional), type (adverse or beneficial), duration (short- or long-term), and intensity.

- Short-term impacts are those that occur only for a limited time period and are not recurring. Long-term impacts are those that occur frequently and are ongoing.
- Direct impacts are those that occur as a direct result of implementation of an alternative and occur at the same time and place of the action. Indirect impacts may be a secondary occurrence as a result of a direct impact. They occur later or are farther removed in distance, but are still foreseeable and related to the action by a chain of cause and effect.
- Adverse impacts cause negative or unfavorable outcomes on resources. Beneficial impacts have positive effects.
- Intensity indicates the potential severity of the impact. Definitions of intensity vary between the resources being evaluated and are provided at the beginning of each of the following resource impact sections.

4.1 Navigation and Vessel Movement

4.1.1 Significance Criteria

This section describes the qualitative criteria used to determine the impacts, both adverse and beneficial, of each alternative on the Buzzards Bay navigational environment.

The three types of marine incidents that most commonly result in major oil spills are considered in this analysis: collisions, allisions, and groundings. The most common cause of marine incidents is human error. The requirements of each alternative have been analyzed and compared to determine how they affect the probability of a marine incident involving a tank barge carrying 5,000 to 6,000 barrels of oil, and the potential for a marine incident to result in an oil spill or other hazardous substance release. The efficiency at which commercial barges are able to safely navigate and transit the bay was also reviewed for each alternative. For this analysis, potential impacts are defined as:

- ***Negligible*** – if the action would have no noticeable effects, beneficial or adverse, over pre-2007 RNA conditions.
- ***Minor*** – if the impact would provide some limited reduction in probability, but no real measurable change.
- ***Substantial*** – if the action would have noticeable or measurable beneficial or adverse impacts that would change the probability of an incident occurring when compared to pre-2007 RNA conditions.

4.1.2 Potential Impacts

4.1.2.1 Alternative 1 (No Action)

Alternative 1 represents the baseline conditions described in Section 3. The U.S. Coast Guard determined through risk assessments and a PAWSA (Ports and Waterways Safety Assessment) that even with these (pre-2007) baseline conditions, the risk for oil or hazardous material discharge was still relatively high. The PAWSA included recommended changes to the baseline RNA in order to further reduce the potential for such releases. Maintaining the baseline alone (Alternative 1) would not change the probability of a future incident occurring, nor change the short term (up to January 2015) potential for release of product in the event of such incident.

4.1.2.2 Alternative 2

Implementation of Alternative 2 would be expected have a minor to substantial beneficial impact in lowering the probability of a marine incident which could result in a future oil spill in Buzzards Bay through three of its requirements: 1) the requirement for a state-licensed pilot if the tank barge is unaccompanied by a tugboat escort; 2) the requirement for a dedicated lookout on the towing vessel; and 3) the requirement for an escort tug for both single and double hull tank vessels. Under Alternative 2, pilots directing oil-carrying barges through Buzzards Bay must have a state license. A state licensed nautical pilot would safeguard against allisions and groundings, and should ensure a safer and more efficient transit through the bay. The pilot provisions apply only to an oil-carrying barge attempting to enter Buzzards Bay unaccompanied by a tug escort, which reduces and limits the potential benefit of this requirement slightly.

The protections added by the state pilot licensure requirement, and the dedicated lookout manning requirement for single hull oil-carrying barges increase the probability that a potential marine incident would be detected early and avoided. However, the pilot is not required to be on the primary towing vessel and the dedicated lookout manning requirement does not apply to oil-carrying barges with a double hull, so its impact is limited and constantly declining as single hull vessels are phased out.

This alternative requires tug escorts for both single and double hull barges carrying 6,000 or more barrels of petroleum. The escort tug requirement for single and double hull barges would reduce the potential for a collision in the event of a loss of positive control by the primary tug. Thus the requirement for an escort tug can substantially reduce the potential for a collision and/or allision incident if the primary tug was powered by a single engine and propeller and lost either in proximity to another vessel or object. The benefit is somewhat less tangible if the primary tug is powered by twin engines and separate propeller shafts; Collisions and allisions could result in a product release to the Bay environment, especially if a single hulled tank barge is the one in jeopardy.

As noted in table 4-1, past oil spills in Buzzards Bay for which detailed information is available have all resulted from vessel groundings. While the potential for the release of oil or other hazardous material is high for single hull barges in the case of grounding, double hull vessels are designed to provide greater protection in such instances. Therefore, requiring an escort tug to accompany a double hull tank vessel would result in only a minor additional reduction in the potential for an incident related release of product, when compared to the same requirement for single hull tank vessels.

Alternative 2 would mandate the use of U.S. Coast Guard recommended routes and includes an option that a vessel may deviate from the mandated route if circumstances make it necessary to avoid a navigation hazard. This could be helpful in preventing an incident since mandating the unconditional use of recommended vessel routes would not have a beneficial impact due to the potential to put mariners at higher risk by requiring them to follow a set route when conditions warrant an alternative approach. Currently, most if not all mariners currently follow the recommended routes without them being mandatory (Federal Register 2007).

The vessel traffic system, if implemented, would have a substantial benefit because it would require continuous communications between the barge and the VTS. In the event of a navigational hazard, the constant communication with the VTS would facilitate the initiation of corrective action without the risk of a communications lapse. Though proposed, the VTS has not yet been developed and implemented for Buzzards Bay or Cape Cod Canal.

In conclusion, Alternative 2 would be expected to have a substantial long-term beneficial impact on the Buzzards Bay maritime environment, as it would reduce the probability of a future oil spill incident through its positive control and single hull barge manning requirements. Although the communications requirement under this alternative is beneficial in theory, the VTS system has not been developed and

therefore would not provide any immediate reduction in risk. Alternative 2 could also potentially have a minor beneficial impact from the mandated use of commercial vessel routes, as long as mariners are permitted to abandon the route to avoid navigational hazards.

4.1.2.3 Alternatives 3a and 3b

Implementation of Alternatives 3a (the 2007 Final Rule) and 3b would be expected to have a substantial beneficial impact on the Buzzards Bay navigation through their communications requirement (VMRS) and positive control (escort tug and pilot) requirements.

Both 3a and 3b would require mandatory participation in a system that would track all commercial vessels through Buzzards Bay and the Cape Cod Canal and require barge operators to make their location and intentions known so that other mariners can use this advance information to avoid collisions. This system would substantially improve navigational and situational awareness for all commercial vessels, and likely result in a measureable decrease in the potential for collisions by facilitating safer and more efficient transits through the bay.

The primary difference between Alternatives 3a and 3b is that 3a would only require escort tugs for single hull tank barges; Alternative 3b includes the requirement for both single and double hull barges. The Coast Guard anticipated that by not requiring a tug escort for double hull barge tows, an incentive would be created for the marine transportation industry to opt for double hull barges more frequently to avoid the extra cost of the escort tug boats. The U.S. Coast Guard 2007 Final Rule's positive control requirements (Alternative 3a) will no longer be relevant after single hull vessels are completely phased out by the end of 2014. The phase-out continuously decreases the number of oil-carrying barges that must follow the final rule's positive control mandates However, because its communications requirements apply to all vessels towing a tank barge, Alternative 3a would continue to create a safer navigational environment through its VMRS requirements after 2014. Alternative 3b would continue to require a tug escort for oil carrying barges with a double hull, but would have no pilot mandates after 2014, as its pilot requirements apply to single hull barges only.

In conclusion, Alternatives 3a and 3b would be expected to have a substantial beneficial impact on navigation on Buzzards Bay and thereby result in reduction in the risk of a release of hazardous material by virtue of the VMRS provisions and positive control provisions, especially as they apply to single hull barges.

4.1.2.4 Alternative 4

Implementation of Alternative 4 would require the U.S. Coast Guard 2007 Final Rule requirements, but would apply the escort tug requirement to both single and double hull barges carrying a minimum of 5,000 barrels of oil or hazardous substances, regardless of propulsion. Alternative 4 would also add the requirement for a federal pilot when double hull barges are in use.

Alternative 4 would have short and long-term, substantial, beneficial impacts on the Buzzards Bay navigation safety when compared to Alternative 1. This alternative provides permanent safeguards to protect against human error as its escort tug and marine pilot requirements apply to both single and double hull barges, regardless of the primary towing vessel's propulsion system. Like Alternatives 3a and 3b, Alternative 4 also would provide increased navigational and situational awareness as a benefit of the VMRS requirement. As the positive control requirements applying to single hull barges become obsolete following the final phase-out year 2014, Alternative 4 will still provide additional navigation safety as it would continue to require escort tugs and pilots for double hull, oil-carrying barges. As noted in 2.1.2.2, however, past oil spills in Buzzards Bay for which detailed information is available have all resulted from vessel groundings.

4.1.2.5 Alternative 5

Alternative 5 would be expected to have the same impact on navigation safety as Alternatives 3a and 3b except it requires only barges carrying 5,000 barrels or more of petroleum to participate in VMRS. When compared to no action (Alternative 1), this requirement (though it requires participation from a smaller number of barges than that described in Alternatives 3a, 3b, and 4) would still increase navigational and situational awareness enough to potentially result in a substantial reduction in collisions and more efficient vessel movement through the bay.

4.2 Biological Resources

This section presents the general impacts that could occur as the result of an oil spill as well as the specific impacts that could occur as the result of implementing any of the alternatives being analyzed in this EA. The relative likelihood of a release is discussed in section 4.1. The level of impact on various biological resources as a result of an oil spill is dependent upon many factors such as wind and current conditions (including direction and force), proximity to shore, time of the year and nature of the product (e.g. heating oil, gasoline, bunker oil, etc) that is released. However, once a release occurs under any of the five alternative scenarios, the impacts of the spill on the Buzzards Bay or Cape Cod Canal environment would be similar under the same set of release circumstances. Those impacts are presented first and are applicable no matter which of the action alternatives was in effect at the time an incident results in breach of the primary product holding tank(s). Specific impacts from implementation of the elements of each alternative which employ various measures designed to minimize the potential for cargo product release are discussed following the oil spill impact discussion.

4.2.1 Significance Criteria

In this section, the intensity of impacts is defined as follows:

- ***Minor*** - Minor impacts have limited effect and would produce no measureable change from pre-2007 RNA conditions.
- ***Moderate -*** Moderate impacts are perceptible and measureable changes from pre-2007 RNA conditions that could require remediation.
- ***Substantial*** - Substantial impacts are severe and have the potential to meet the criteria for substantial impacts in CEQ regulations (Title 40 CFR Section 1508.27). Impacts on the biological communities of Buzzards Bay would be considered substantial if disturbances would:
  - have an adverse, long-term or acute short term impact, either directly or through habitat modifications, on any species identified as a candidate, special concern, threatened, or endangered species by MDFW, NMFS, or USFWS.
  - have a negative effect on or cause a substantial decline in critical habitats including open water, eelgrass beds, beaches, and saltmarshes that provide important habitat resources for migratory and resident animal species.
  - substantially alter the movement, range or breeding behaviors of resident and migratory animal species.
  - cause a fish or other wildlife populations to drop below self-sustaining levels.

4.2.2 Potential Impacts

4.2.2.1 Impacts of Oil Spills on the Biological Resources of Buzzards Bay

From a biological perspective, oil spills can have substantial short (acute) - and long-term (residual) adverse impacts on the kinds of organisms and habitats found in Buzzards Bay. Not only does oil contamination kill or have sublethal physiological and reproductive effects on many individual organisms, oil spills can have substantial adverse population-level effects by reducing foraging resources and nesting habitat.

Studies of previous oil spills in Buzzards Bay show that oil contamination kills large numbers of birds, fish, and invertebrates as well as the *Spartina* grasses that comprise the majority of plants in salt marshes (Culberton et al 2008). Almost 40 years after the 1969 oil spill in Buzzards Bay, residual oil is still present 3 to 8 inches (8 to 20 centimeters) below the surface of salt marshes that were contaminated in the 1969 spill (Reddy et al 2002). Research shows that the concentration of oil hydrocarbons below the surface has not changed since 1973 and degraded only partially, suggesting that these oil deposits are likely to persist for many decades. This residual oil reduces below-ground salt marsh grass biomass, including the roots and rhizomes that are critical to stabilizing salt marsh sediments (Culberton et al. 2008). Eelgrass beds also have the potential to be negatively affected by oil contamination because oil reduces photosynthesis rates and causes root and shoot mortality. However, eelgrass plants have been shown to be more negatively susceptible to oil dispersant use than oil itself (NOAA 2009).

Benthic organisms vary in their sensitivity to oil spills. *Ampilesca* and other amphipods are sensitive to hydrocarbon contamination while many polychaetes are resistant to high levels of oil pollution in sediments (Gomez Gasteira et al 2003). Although the initial oil spill impact can kill populations of shellfish and fish, the most substantial impact of oil contamination in shellfish and fish populations are sublethal effects, such as decreased or abnormal growth, organ and tissue damage and decreased reproductive rates. Fish and shellfish exposure to hydrocarbons from oil spills can impair cellular processes and negatively impact reproductive rates as well as the survival of the egg and larval stages of development (Carls et al 1999; Whitehead et al 2011; Ortiz-Zarragoitia et al. 2011). Salt marsh fiddler crabs, *Uca pugnax*, that inhabit salt marshes contaminated by the 1969 oil spill in Buzzards Bay are chronically exposed to the spilled oil when they burrow into sediments at depths of 2 to 10 inches (5 to 25 centimeters). Crabs exposed to residual oil in Buzzards Bay salt marshes avoided burrowing into oiled layers, and had lowered feeding rates and lower population densities (Culbertson et al. 2007).

Bird deaths from oil spills are usually the result of either oil ingestion or oiling of feathers, which removes their insulating properties and decreases flight ability. Over 450 bird deaths occurred as a result of the 2003 Bouchard 120 oil spill in Buzzards Bay. Birds are also susceptible to sublethal physiological and reproductive effects of oil spills.

Sea turtles are susceptible to oil contamination through inhalation when they surface to breathe, or through ingestion of soiled plant materials or contaminated jelly fish. Sea turtle eggs and hatchlings are susceptible to oil contamination through absorption (NOAA/NMFS 2012).

4.2.2.2 Impacts on Biological Resources From Activities Particular to Each of the Alternatives (Includes Relative Risk of Product Release Under Each Alternative Scenario)

Impacts of Alternative 1 (No Action)

Under Alternative 1, risk of an oil spill in Buzzards Bay would remain unchanged. Since 1969 there have been five incidents of tank barge groundings with oil spills in Buzzards Bay that have had adverse impacts on shoreline habitats, including salt marshes, and shellfish and bird populations (NOAA 2003). Other organisms including fish, sea turtles and, although extremely rare, North Atlantic right

whales in Buzzards Bay could also be severely impacted by oil spills. As noted in Section 3.2, a number of federally and state-listed threatened and endangered species use Buzzards Bay as habitat and their populations could be adversely impacted if an oil spill occurred in the bay or canal. This alternative presents a higher risk for future oil spills than the action alternatives (Alternatives 2 through 5) and is therefore the least desirable option.

Impacts of Alternative 2

Alternative 2 would require the use of tug escorts for single and double hull tank barges that are not self-propelled and carry 6,000 or more barrels of petroleum, with exemptions for some tank barges. The presence of tug escorts for these barges would slightly increase the amount of boat traffic in Buzzards Bay.

Boat traffic can be a hazard to marine species and habitats. Ship strikes can be a substantial source of injury and mortality for sea turtles and other marine animals. In each of the years 2010 and 2011, one sea turtle mortality due to a boat strike in Buzzards Bay was recorded. Given the low number of sea turtle ship strikes and the extremely rare occurrence of whales specifically in Buzzards Bay and the Cape Cod Canal, the slight increase in boat traffic due to tug escorts that would occur under this alternative would likely have a negligible adverse impact on these species. Although not the primary objective, the manning requirement of this alternative, to have one licensed deck officer or barge operator specifically serving as lookout, could aid in spotting turtles or whales and reduce the potential for strikes should occasional transient species representatives occur in the affected waters.

Boat traffic can cause a short-term increase in turbidity and suspended sediments as the result of turbulence from surface wake. Propeller wash of boats can adversely impact photosynthetic rates of aquatic plants that are important habitat for marine animals as well as negatively affect respiration rates and egg and larval development in fish and shellfish (South Carolina Coastal Conservation League 1997; Woods Hole Oceanographic Institution 1998; Asplund 2000). Under this alternative, tug and barge traffic in Buzzards Bay would be restricted to designated, deep-water, shipping channels. The increase in boat traffic under this alternative would cause a minor, transient increase in water turbidity with negligible impacts to benthic, shellfish and fish communities.

The increased escort requirement would have potential to avoid marine incidents where the primary tug experienced a full propulsion or steering loss. The degree to which this escort requirement would reduce the potential for product release under the same circumstances would depend to a substantial degree on whether the towed barge in use was of single or double wall construction.

Impacts of Alternative 3a

Alternative 3a would require the use of tug escorts for single hull tank barges carrying 5000 or more barrels of petroleum or other hazardous substance. Similar to Alternative 2, Alternative 3a would have an exemption for some tank barges. Use of the VHF system, as required under this alternative, would have the potential to reduce ship strikes against marine animals by providing an early warning system that these animals are present and enable vessel operators to take evasive action.

The escort tug requirement under Alternative 3a would only apply to single hull tank barges and not double hulled. Therefore, it would affect fewer vessels than other alternatives that would require the escort tug for both single and double hull tank barges. Since fewer vessels would be in operation on any given day, the activities required under this alternative would have slightly less impact on biological communities of Buzzards Bay.

While the lack of escort for tows with double hull barges reduces the potential to avoid a marine incident (e.g. grounding or collision) most tow vessels in operation on Buzzards Bay are equipped with

dual propulsion systems so that a full propulsion failure is less likely. Moreover, since the Coast Guard believes that use of double hull barges is key to the reduction in the potential for release of product, it was anticipated that this alternative (beginning in 2007) would create incentive for towing interests to choose double hulled instead of single hull equipment sooner than required by OPA 90 at the end of 2014. Further, that the more frequent use of double hull barges would result in a more timely reduction in the potential for product release and thereby result in accelerated protection for Buzzards Bay and the Cape Cod Canal.

Impacts of Alternative 3b

The difference between Alternatives 3a and 3b is that Alternative 3b would require the use of a tug escorts for both single and double hull tank barges. As a result, this alternative would increase the amount of boat traffic in Buzzards Bay over Alternatives 1 and 3a; however, the potential for impacts to sea turtles or whales due to ship strikes would be greater, though still minimal based upon the normally low presence of these species representatives. The use of the VHF system may reduce the potential of ship strikes against marine animals by providing an early warning system that organisms are present and enable vessel operators to take evasive action.

Impacts to turbidity would be the same as Alternative 2.

The increased escort requirement would have potential to avoid marine incidents where the primary tug experienced a full propulsion or steering loss. The degree to which this escort requirement would reduce the potential for product release under the same circumstances would depend to a substantial degree on whether the towed barge in use was of single or double wall construction. Moreover, most tow vessels in operation on Buzzards Bay are equipped with dual propulsion systems so that a full propulsion failure is less likely.

Impacts of Alternative 4

Alternative 4 would require escort tugs for both single and double hull tank barges carrying 5,000 or more barrels of petroleum or other hazardous substance, with exemptions for some tank barges with capacity of more than 25,000 barrels. This alternative would increase the amount of boat traffic in Buzzards Bay more than Alternative 3(a) because of the more inclusive rules regarding the use of tug escorts. Use of the VHF system, as required under this alternative, may reduce the potential of ship strikes against marine animals, similar to other alternatives that include this requirement.

The increase in boat traffic under Alternative 4 would not contribute to a substantial increase in water turbidity because the tug and barge traffic would occur in deep-water shipping channels and be a transient event. Therefore, the increase in boat traffic under this alternative would cause a minor, transient increase in water turbidity with negligible impacts to benthic, shellfish and fish communities.

The increased escort requirement would have potential to avoid marine incidents where the primary tug experienced a full propulsion or steering loss. The degree to which this escort requirement would reduce the potential for product release under the same circumstances would depend to a substantial degree on whether the towed barge in use was of single or double wall construction. Moreover, most tow vessels in operation on Buzzards Bay are equipped with dual propulsion systems so that a full propulsion failure is less likely. While the potential for the release of oil or other hazardous material is high for single hull vessels in the case of grounding, double hull vessels are designed to provide greater protection in such instances. As a result, the decrease in potential for an incident related release of product through the use of escort tugs for double hull tank vessels is minor when compared with single hull tank vessels.

Impacts of Alternative 5

Alternative 5 would have the same impacts on biological resources as Alternative 3a. The only difference between these two alternatives in potential value for marine incidents to occur is that VMRS notification under Alternative 5 is required only for tank barges carrying 5,000 or greater barrels of oil or other hazardous materials. Therefore, the potential for impacts from smaller releases would be greater, but would be expected to be about the same for situations having potential for a larger release.

4.3 Socioeconomics

This section describes the socioeconomic impacts that could result from implementation of each of the alternatives. It includes a description of potential economic impacts of an oil spill, if one were to occur, which would be applicable to all of the alternatives, followed by analysis of the economic impacts that implementation of each of the alternatives could be expected to produce.

4.3.1 Significance Criteria

Socioeconomic impacts were evaluated in terms of context (local or regional), type (adverse or beneficial), duration (short- or long-term), and intensity (negligible, moderate, or major). Assessment of these impacts is also divided between effects on the shore-side community economies and the effects on costs to the marine transportation industry.

In this section, intensity is defined as follows:

- ***Negligible or Minor*** - Socioeconomic conditions would not be affected or impacts would not create a noticeable change over pre-2007 RNA conditions.
- ***Moderate*** - Impacts would be apparent and cause a minor increase or decrease in local economies and Buzzards Bay communities (25 to 50 percent increase or decrease, if quantifiable).
- ***Major*** - Impacts would substantially alter the social and economic characteristics of Buzzards Bay communities.

4.3.2 Potential Impacts

4.3.2.1 General Impacts of Oil Spills on Socioeconomic Resources of Buzzards Bay

An oil spill can have serious socioeconomic impacts on the affected region, local communities, residents, the state and the federal government. Impacts may include damages to real and personal property, loss of use of natural resources (beaches, parks and recreation areas), and loss of income (fishing, tourism, recreation, and other commerce). As noted in Section 3.4 of this EA, municipalities abutting Buzzards Bay depend on the bay and its resources for a large part of their economic base. As experienced in the past, an oil spill in Buzzards Bay could have both direct and indirect, moderate to major adverse impacts on the economy of Buzzards Bay communities, with indirect, long-term impacts lasting over a several years. Although the risk of an oil spill varies somewhat among the alternatives, the severity of impacts from an oil spill, should one occur, would be the same under any of the alternatives being considered in this EA when a similar set of circumstances are considered (e.g. quantity and type of release, wind and sea conditions, proximity to shore, etc.). Therefore, the potential impact of an oil spill to Buzzards Bay municipalities would be expected to be comparable for all alternatives as generally described below.

A combined total of more than 12,000 shellfish licenses are issued annually in Buzzards Bay towns (BBNEP 2012). In recent years many areas of Buzzards Bay have been off limits for shellfishing due to bacterial closures. In addition, oil spills have affected shellfish beds in Buzzards Bay. In 1969 Massachusetts closed shellfish beds in Wild Harbor, Falmouth for at least six years because of the barge Florida spill (BBNEP 2012). In April 2003, the barge Bouchard No. 120 fuel oil spill caused the closure of large areas of Buzzards Bay to shellfish. Most closed areas relating to the Bouchard No. 120 spill were rescinded by October 15, 2004; however, a total of approximately 273 acres in Mattapoisett, Fairhaven, and Dartmouth remained closed through April 2007. As of May 2011, a small area (3.7 acres) just south of Long Island in the town of Fairhaven remained closed because of oil contamination. (BBNEP 2012). The Natural Resource Damage Assessment (NRDA) for the Bouchard No. 120 spill found that a total of 47,298 recreational shellfishing trips were lost at a value of $1.4 million (2009 dollars) as the result of the 2003 oil spill (TWG 2009).

A future oil spill that impacted shellfish beds would cause both short- and long-term shellfish bed closures and reduce and/or eliminate a major source of municipal revenues as the result of a reduced demand for shellfish licenses. Such a scenario would also have a major long-term impact on commercial fishermen that depend on shellfish beds in Buzzards Bay for their living and a potentially major indirect short-term impact on the local economy. The annual value of shellfish harvested from Buzzards Bay in 2003 was estimated at $4 million. Using an economic multiplier effect of 4.5, the estimated value of the catch to the local economy was estimated at $18 million (BBNEP 2011a).

Tourism would also be adversely affected, at least for the short-term, as the result of beach closures and the public assumption of contamination. A drop in tourism would have moderate, direct and indirect impacts on the municipalities and local commercial enterprises. The municipalities would lose income from the sale of beach stickers. Local retail establishments, restaurants and lodging would likely realize a decrease in revenues from a decrease in visitors to the area. Commercial enterprises that offer fishing charters in the bay would also lose business.

Depending on the time of year, an oil spill could have substantial adverse impacts on recreational boating. If a spill was to occur during the recreational boating season and required the closure of portions of the bay or area harbors during clean-up, short-term closures could adversely affect regattas and the associated revenues derived from visitors arriving to participate and observe them. Such impacts would probably be short-term and moderate.

4.3.2.2 Impacts of the Alternatives

Impacts of Alternative 1 (No Action)

Under the No Action alternative, there would be no changes to barge activity in either Buzzards Bay or the Cape Cod Canal and the risk of an oil spill from a single hull tank barge and associated risk of economic impacts to Buzzards Bay municipalities would continue to slowly decrease as the OPA 90 deadlines for elimination of single hull barges approaches. As noted above, a future oil spill in Buzzards Bay could have both short-and long-term, moderate to major adverse economic impacts. As a result, this alternative, which has the highest potential for future oil spills, is the least desirable alternative from a socioeconomic perspective.

Impacts of Alternative 2

Alternative 2 would be expected to provide greater protection than Alternative 1 against the occurrence of marine incidents that could lead to an oil spill, due to its requirement for a dedicated lookout on a towing barge while in Buzzards Bay and an escort tug for all tank barges carrying 6,000 barrels or more of petroleum. Although it requires that a state-licensed pilot direct the barge through Buzzards Bay, it does not require the pilot to be on the primary towing vessel. Since this alternative

would require an escort tug for all tank barges having the noted capacity, it would affect more vessels than alternative 1 and have a long-term, minor impact on barge owners who would be required to pay for the escort tug even beyond the OPA 90 2015 phase out of single hull barges. The estimated cost for a tug escort for a one-way transit through Buzzards Bay was $3,200 in 2005 (USCG 2007b). It is assumed that this cost, while minor, would be passed along to consumers. Under MOSPRA regulations, state-licensed pilots are provided at the state's (ultimately the taxpayers') expense. Therefore, the addition of a state-licensed pilot would not affect the barge owner's operational costs under this alternative.

Impacts of Alternative 3a

Alternative 3a provides slightly greater protection from an oil spill than Alternative 2 since it applies to single hull tank barges carrying 5,000 or more barrels of petroleum (not 6,000 and not limited to petroleum) and mandates that a federally licensed pilot direct and control from the primary towing vessel while in Buzzards Bay and the Cape Cod Canal. From a socioeconomic perspective, this alternative would have a short-term minor direct adverse impact on barge owners since they would be required to pay for the federal pilot and the escort tug. The estimated cost for a federal pilot on a one-way transit through Buzzards Bay would be about $1,375; the cost for an escort tug would be approximately $3,200 (in 2005 dollars) (USCG 2007b). However, by requiring escort tugs and federal pilots for single-hull barges only, Alternative 3a would also be expected to provide a financial incentive to barge owners/operators to switch to double hull barges as frequently and as soon as possible. It is anticipated that this incentive would result in a decrease in the use of single hulled tank vessels sooner than would otherwise occur by the 2015 deadline for the phase-out of this type tank vessel. Accordingly, by accelerating the reduction in the use of single hull tank vessels, the risk of an incident resulting in the release of hazardous materials would be expected to decrease faster than would occur under the other alternatives.

Impacts of Alternative 3b

Alternative 3b would have similar impacts as Alternative 3a except that it would have a higher and longer-term cost to tank barge owners who would be required to assume the cost of federal pilots for single hull barges and tug escorts for both single and double hull tank barges carrying 5,000 or more barrels of oil or other hazardous substance. While single hull tank barges are to be phased out of service by January 1, 2015, double hull tank barges will continue to operate beyond that date and the cost of the tug escort would, therefore, continue. It is assumed that this cost, would be passed along to consumers.

Impacts of Alternative 4

This alternative would have higher costs to barge owners than Alternative 3(a) since it would require federal pilots and tug escorts for both single and double hull tank barges carrying 5,000 or more barrels of oil or other hazardous substances. This alternative would apply to the greatest number of vessels, therefore carrying the greatest financial cost to the barge owners. Like Alternative 3b, this cost would continue beyond the January 1, 2015 single hull phase out date. Therefore, this alternative would have a long-term minor adverse cost impact on barge owners. It is assumed that this cost, would be passed along to consumers.

Impacts of Alternative 5

Alternative 5 would have virtually the same socioeconomic impacts as Alternative 3a.

4.4 Public Health and Safety

An incident in Buzzards Bay or the Cape Cod Canal that included the release of oil or a

hazardous substance could affect both public health and safety. The number of people affected and the severity of the impact would be based on a number of factors including the volume of the spill, the location of the incident, meteorological conditions, and time of year. Specific human health reactions are dependent on the material that is released and the extent and type of contact; for example, reactions from acute inhalation of No. 6 fuel oil, which was released in the Bouchard 120 incident in 2003, can include headache, and nausea and vomiting. Skin contact can cause irritation and rash (BBNEP 2011b). Impacts on public health and safety are derived from both the risk of product release and implementation of the additional requirements under each alternative considered when the 2007 RNA amendments were being written.

According to the PAWSA conducted by the Coast Guard in 2003, the risk for oil or hazardous material discharge in Buzzards Bay was still relatively high (at that time) under the "No Action" alternative requirements. Therefore, the risk to public health and safety was equivalently relatively high at the time of that study. While there are slight differences among the alternatives regarding the potential risk for a future incident, implementation of any of the alternatives would have an indirect, beneficial impact on public health and safety since they would all in some manner further reduce the potential for oil or hazardous material releases. For example, Alternatives 2, 3(b) and 4 could provide indirect public health benefits by reducing the potential for marine incidents that may result in a spill when compared to Alternatives 1, 3(a) and 5 because they require an escort for both single and double hull barges, However, these alternatives provide no incentive to barge owners to accelerate the retirement of single hull barges and, therefore could result in slightly greater risk of exposure to a potential spill to the public than Alternative 3a. In addition Alternatives 2 through 5 include enhanced vessel to vessel communication, with Alternatives 3(a) through 5 also requiring coordination through the VRMS. Enhanced communication is an important factor in avoiding vessel to vessel collisions which have substantial potential to result in release of oil or other materials that could be hazardous to human health or safety.

As noted in previous discussion in this document, the Coast Guard assessment in 2007 indicated that the greatest reduction in the likelihood that a marine incident would result in product release is achievable by fostering the accelerated phase out of single hull tank barges in favor of those constructed with double hull technology [Alternative 3(a)]. This beneficial effect is also enhanced by increased vessel location awareness that is common to Alternatives 3 through 5.

4.4.1 Impacts of Implementation of the Alternatives

4.4.1.1 Impacts of Alternative 1

Under the No Action alternative, there would be no changes to barge activity in either Buzzards Bay or the Cape Cod Canal. In terms of public health and safety, impacts from barge towing operations are for the most part limited to interaction with other vessels including recreational boats. Since Alternative 1 does not increase or decrease barge activity, any risk of collisions or other interaction (e.g. tow line impacts) would not change.

4.4.1.2 Impacts of Alternative 2

Alternative 2 would result in additional tug vessel activity by requiring the escort vessel for both single and double hull tank barges. This may slightly increase the potential for interaction with other vessels operated by the boating public with associated health and safety effects. However, this alternative [as well as Alternative 3(b)] also would require additional look-outs on board the tug/tow, which could increase the tug vessel master's situational awareness and help with avoidance of close encounters with these other vessels, including those operated by the recreational public.

4.4.1.3 Impacts of Alternative 3a

Alternative 3a would increase the number of tug vessels somewhat over the No Action Alternative, but less than the other alternatives by requiring an escort tug only for all single hull tank vessels. Less vessel traffic would be expected to result in corresponding lower potential for commercial to recreational vessel interaction, thereby lowering the potential for risk to public safety. In addition, the enhanced communication requirements (VMRS) under this alternative apply to all tank barges (both single and double hull). Therefore, the vessel location awareness safety benefit derived from enhanced communication would be very substantial and long-term under this alternative.

4.4.1.4 Impacts of Alternative 3b

Alternative 3b would be expected to have potential for public safety and health impacts as a result of the level of commercial vessel activity similar to Alternative 2 as discussed above.

4.4.1.5 Impacts of Alternative 4

Alternative 4 would involve the same increase in commercial vessel traffic as Alternatives 2 and 3(b) by requiring a tug escort for all single and double hull tank vessel tows. Therefore, the potential effects on public vessel operator and passenger safety due to increased commercial vessel activity would be expected to be similar to that resulting from implementation of those two alternatives as described under the Alternative 2 discussion above.

4.4.1.6 Impacts of Alternative 5

Alternative 5 would have essentially the same public health impacts as Alternative 3(a).

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5 CUMULATIVE IMPACTS

Cumulative impact is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR § 1508.7).

The 1996 Regulated Navigation Area (RNA), the 2007 RNA amendments, and the MOSPRA, as well as future federal and state regulations are collectively and incrementally intended to improve protection of the environment through implementation of operational requirements as well as mandated vessel structural characteristics in order to reduce the potential for marine mishaps and minimize the possibility for release of petroleum product should such marine mishap occur. When considering all impacts from any action, it is important to note that these regulatory requirements also have effects on the commercial marine industry. Therefore, these incremental benefits to the environment must be developed and implemented while also considering the economic consequences of these measures compared to the benefit(s) reasonably expected to be gained.

The alternatives discussed in this Environmental Assessment are comprised of measures that were implemented or considered for implementation over time in order to improve protection of Buzzards Bay and Cape Cod Canal from the potentially severe damage caused by oil or hazardous material releases. Each element of the alternatives, individually and in tandem are capable of contributing some measure of improvement in either navigation safety or vessel structural integrity which can be implemented in various combinations that would constitute the spill avoidance portfolio for these environmentally sensitive waterways.

Other than for the beneficial increase in protection to Buzzards Bay and Cape Cod Canal with each regulatory layer over the years, no past, present, or reasonably foreseeable future actions were identified that, when coupled with any of the alternatives considered in this EA, would create a substantial adverse environmental impact.

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6 CONCLUSION

This Environmental Assessment analyzed the impacts associated with the implementation of the 2007 amendments to the Regulated Navigation Area (RNA) established on Buzzards Bay and the Cape Cod Canal in 1996. The original RNA was implemented in recognition of the threat of an oil spill to this "Estuary of National Significance". Subsequent amendments were similarly intended to further reduce the possibility of such release. This analysis included evaluation of a number of alternatives comprised of various combinations of requirements for navigation safety and tank vessel structural standards. Effects from any of these alternatives are derived from the relative risk for a marine incident to occur, the potential for a product (cargo) release to result from such incident, and any increase in general navigation hazards due to additional commercial vessel presence on the affected waterways.

The Coast Guard has determined that implementation of any of the action alternatives (Alternative 2 through 5) would not result in significant impacts to the Buzzards Bay and Cape Cod Canal environment. This analysis also confirms the Coast Guard's determination in 2007 that the measures described in Alternative 3(a), under the circumstances existing at that time, would improve the reduction in oil or hazardous material release potential more quickly than the other alternatives and therefore be of substantial benefit to the Bay and Canal environment. Since no significant impacts were discerned from this assessment, the Coast Guard concludes that an Environmental Impact Statement (EIS) is not required to document effects from implementation of Alternative 3(a) as the 2007 RNA Amendments; and instead a Finding of No Significant Impact (FONSI) will be prepared.

It is important to note that, in the continuing effort to determine the need for additional protective measures, the Buzzards Bay Regulated Navigation Area (as currently amended) is being evaluated once again. Towards this goal, the U.S. Coast Guard is working with the Massachusetts Department of Environmental Protection to evaluate what changes may be needed to further improve navigation safety and assure soundly structured tank vessels are used in order to minimize the potential for an oil or hazardous materials release to Buzzards Bay and the Cape Cod Canal.

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7 LIST OF PREPARERS

The U.S. Coast Guard liaisons associated with the preparation of this EA are:

John Mauro
First Coast Guard District,
Chief Waterways Management Branch
408 Atlantic Avenue
Boston, MA 02110

and

Lucas Dlhopolsky
Civil Engineering Unit Providence
300 Metro Center Boulevard
Warwick, RI 02886

The Contractor responsible for preparing the draft document for this EA was:

ARCADIS
200 Harvard Mills Square, Suite 430
Wakefield, MA 01880

Table 6-1 provides the list of individuals that contributed to the preparation of this EA.

Name	Role	Years Experience	Degree(s)	Responsibilities
Chuck Castelluccio	Project Manager	30+	B.S. Earth Science M.S. Geology	• APE management • Quality assurance
Barbara Mohrman	Technical Lead	30+	B.S. Human Development M.A. Urban Affairs	• Project Coordination • Technical review • Socioeconomics
Evan Clark, PE	Navigation and Traffic	30+	B.S. Ocean Engineering M.S. Economics	• Navigation and Traffic
Desmond Williams	Navigation and Traffic	8	B.S. Environmental Science	• Navigation and Traffic
David Ludwig	Biological Resources	25+	B.S. Environmental Science M.A. Marine Science PhD Systems Ecology	• Biological Resources
Emily Morrison	Biological Resources	5	B.A. Biology Ph.D. Zoology	• Biological Resources
Seville Sdote	Report production	14		• Report formatting and editing
Mike Holle	GIS Graphics	15+	B.S. Natural Resource Management	• Preparation of report figures • GIS analysis

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8 REFERENCES

Asplund, T.R. 2000. The effects of motorized watercraft on aquatic ecosystems. Wisconsin Department of Natural Resources, Bureau of Integrated Science Services and University of Wisconsin – Madison, Water Chemistry Program. PUBL-SS-948-00.

Bragg, Mary Ann. 2012. Right whale sighting closes Cape Cod Canal. Cape Cod Times. January 3, 2012.

Buzzards Bay Regatta. 2012. Accessed online at: http://www.buzzardsbayregatta.com/. 1/17/2012.

BBNEP. 2011a. Draft Comprehensive Conservation and Management Plan. Buzzards Bay national Estuary Program. 2011.

BBNEP. 2011b. Health Issues and the Bouchard No. 120 Spill. Buzzards Bay National Estuary Program. Accessed at: http://www.buzzardsbay.org/oilhealth.htm. December 2011.

BBNEP. 2012. Shellfish and Shellfishing in Buzzards Bay. Buzzards Bay National Estuary Program. Accessed at: http://www.buzzardsbay.org/index.html. 1/17/2012.

Bourne. 2009. Town of Bourne Local Comprehensive Plan. Revised May 12, 2008. January 2009.

Cargnelli, Luca M., Sara J. Griesbach, Cathy McBride, Christine A. Zetlin, and Wallace W. Morse. 1999a. Longfin Inshore Squid, (Loligo pealeii) Life History and Habitat Characteristics September 1999. V29 p.

Cargnelli, Luca M., Sara J. Griesbach, Peter L. Berrien, Wallace W. Morse, and Donna L. Johnson. 1999b. Haddock, (Melanogrammus aeglefinus) Life History and Habitat Characteristics.September1999 V31 .

Cargnelli, Luca M., Sara J. Griesbach, David B. Packer, and Eric Weissberger. 1999c. Atlantic Surfclam, (Spisula solidissima) Life History and Habitat Characteristics. September 1999. V+ 13 p.

Carls, M.G., S.D. Rice, J.E. Hose. 1999. Sensitivity of fish embryos to weathered crude oil: Part I. Low-level exposure during incubation causes malformations, genetic damage, and mortality in larval pacific herring (Clupea pallasi), Environmental Toxicology and Chemistry 18: 481-493.

Chang, Sukwoo, Peter L. Berrien, Donna L. Johnson, and Wallace W. Morse. 1999a. Windowpane, (Scophthalmus apuosus) Life History and Habitat Characteristics. September 1999. V+ 32 p.

Colburn, L., D.A. Carey, and N. Haley. Competing Site Use Assessment. Buzzards Bay Disposal Site Report. Prepared for Maguire Group Inc By Coastal Vision. June 26, 2002.

Cross, Jeffery N., Christine A. Zetlin, Peter L. Berrien, Donna L. Johnson, and Cathy McBride. 1999. Butterfish, (Peprilus triacanthus) Life History and Habitat Characteristics. September 1999. V+ 42p.

Culbertson, J.B., Valiela, I., Peacock, E.E., Reddy, C.M., Carter, A., and Van der Kruik, R. 2007. Long-term biological effects of petroleum residues on fiddler crabs in salt marshes. Marine Pollution Bulletin 54: 955-962,

Fahay, Michael P., Peter L. Berrien, Donna L. Johnson, and Wallace W. Morse. 1999a. Atlantic Cod, (Gadus morhua) Life History and Habitat Characteristics. September 1999. V+ 41p.

Fahay, Michael P., Peter L. Berrien, Donna L. Johnson, and Wallace W. Morse. 1999b. Bluefish, (Pomatomus saltatrix), Life History and Habitat Characteristics. September 1999. V+ 32 p.

Falmouth. 2005. Falmouth Local Comprehensive Plan. Town of Falmouth. January 2005.

Federal Register. 2007. U.S. Coast Guard Notice of Final Rule. Vol. 72. No 168. Pgs. 50052-50055.August 30, 2007.

Form Red Knot. 2012. Accessed at: http://ecos.fws.gov/docs/candidate/assessments/2012/r5/B0DM_V01.pdf. January 27, 2012.

Gomez Gesteira, J.L, J.C. Dauvin, M. Salvande Fraga. 2003. Taxonomic level for assessing oil spill effects on soft-bottom sublittoral benthic communities. Marine Pollution Bulletin 46: 562–572.

Howes, B.L. and D.D. Goehringer. 1996. Ecology of Buzzards Bay: An Estuarine Profile. U.S. Department of the Interior.

Johnson, Donna L. Peter L. Berrien, Wallace W. Morse, and Joseph J. Vitaliano. 1999. American Plaice (Hippoglossoides platessoides), Life History and Habitat Characteristics. September 1999. V+ 32 p.

Massachusetts Department of Public Health. 2002. Marine and Freshwater Beach Testing in Massachusetts. 2001 Season. Massachusetts Department of Public Health, Bureau of Environmental Health Assessment Environmental Toxicology Program. October 2002.

MDEP. 2009. Evaluation of Marine Oil Spill Threat to Massachusetts Coastal Communities. Prepared for Massachusetts Department of Environmental Protection by Nuka Research & Planning Group, LLC. . December 2009.

MDMF. 2002. Marine Fisheries Regulation Summaries as of January, 2002. Massachusetts Division of Marine Fisheries. 2002.

MDFW. 2008. Natural Heritage Endangered Species Program Fact Sheets. Accessed at: http://www.mass.gov/dfwele/dfw/nhesp/species_info/. January 12, 2012.

Morreale, S.J. and E.A. Standora. 1989. Occurrence, movement and behavior of the Kemp's ridley and other sea turtles in New York waters. Okeanos Ocean Research Foundation Annual Report. April 1988 to April 1989. 35 pp.

NOAA/NMFS. 2012. Guide to Essential Fish Habitat Descriptions. National Oceanic and Atmospheric Administration, National Marine Fisheries Service Accessed at: http://www.nero.noaa.gov/. January 2012.

Ortiz-Zarragoitia, M., L. Garmendia, M.C. Barbero, T. Serrano, I. Marigómez, M.P. Cajaraville. 2011. Effects of the fuel oil spilled by the Prestige tanker on reproduction parameters of wild mussel populations. Journal of Environmental Monitoring: 13, 84-94.

Packer, David B., Sara J. Griesbach, Peter L. Berrien, Christine A. Zetlin, Donna L. Johnson, and Wallace W. Morse. 1999. Summer Flounder, (Paralichthys dentatus) Life History and Habitat Characteristics. September 1999. V+ 87 p.

Pereira, Jose J., Ronald Goldberg, John J. Ziskowski, Peter L. Berrien, Wallace W. Morse, and Donna L. Johnson. 1999. Winter Flounder, (Pseudopleuronectes americanus) Life History and Habitat Characteristics. September 1999. V+ 39 p.

Port of New Bedford. 2011. Official internet site. Accessed at: http://www.portofnewbedford.org/. 12/2011.

Port of New Bedford. 2012. Key Features about the Port of New Bedford/New Bedford Harbor. Accessed at: http://www.portofnewbedford.org/about-the-port/key-features/. 1/16/2012.

Reddy, C.M., Eglinton, T.I., Hounshell, A., White, H.K., Xu, L., Gaines, R.B., and Frysinger, G.S. 2002. The West Falmouth oil spill after thirty years: The persistence of petroleum hydrocarbons in marsh sediments., Env. Sci. and Technol.: 36, 4754-4760.

Reid, Robert N., Luca M. Cargnelli, Sara j. Griesbach, David B. Packer, Donna L. Johnson, Christine A. Zetlin, Wallace W. Morse, and Peter L. Berrien. 1999. Atlantic Herring, (Clupea harengus) Life History and Habitat Characteristics. September 1999. V+ 54 p.

Robins, C. Richard and G. Carleton Ray. 1986. A Field Guide to Atlantic Coast Fishes North America. Houghton Mifflin Company. Boston, MA. 354 pp.

Shoop, C.R. and R.D. Kenney. 1992. Seasonal distribution and abundances of loggerhead and leatherback turtles in waters of the northeastern United States. Herpetological Monographs 6: 43-67.

South Carolina Coastal Conservation League. 1997. Boat wakes take toll on marsh. The Coastal Guardian 8:6-7.

Steimle, Frank W., Christine A. Zetlin, Peter L. Berrien, and Sukwoo Chang. 1999a. Black Sea Bass, (Centropristis striata) Life History and Habitat Characteristics. September 1999. V+ 42 p.

Steimle, Frank W., Christine A. Zetlin, Peter L. Berrien, Donna L. Johnson, and Sukwoo Chang. 1999b. Scup, (Stenotomus chrysops) Life History and Habitat Characteristics. September 1999. V+ 39 p.

Steimle, Frank W., Wallace W. Morse, Peter L. Berrien, and Donna L. Johnson. 1999c. Red Hake, (Urophycis chuss) Life History and Habitat Characteristics. September 1999. V+40 p.

Steimle, Frank W. and Patricia Shaheen. 1999. Tautog (Tautoga onitis) Life History and Habitat Requirements. NOAA Technical Memorandum NMFS-NE-118. 23pp.

Studholme, Anne L., David B. Packer, Peter L. Berrien, Donna L. Johnson, Christine A. Zetlin, and Wallace W. Morse. 1999. Atlantic Mackerel, (Scomber scombrus) Life History and Habitat Characteristics. September 1999. V+ 35 p.

TWG. 2009. Bouchard B-120 Oil Spill Buzzards Bay, Massachusetts Lost Use Valuation Report. Bouchard B-120 Oil Spill lost Use Technical Working Group. 3/31/2009.

UMass Donahue Institute. 2012. Source Data from 2010 Demographic Profile Summary File – Massachusetts. U.S. Census Bureau. Release Date: May 5, 2011. Accessed at: http://www.massbenchmarks.org/statedata/data.htm. 1/16/2012

USACE. 2012a. Corps Lakes Gateway: Massachusetts – Cape Cod Canal. U.S. Army Corps of Engineers. Accessed at: http://corpslakes.usace.army.mil/visitors/projects2.cfm?Id=E600406&StartRow=11. 1/17/2012.

USACE. 2012b. Cape Cod Canal internet web page. U.S. Army Corps of Engineers. Accessed at: http://www.nae.usace.army.mil/recreati/ccc/ccchome.htm . 12/7/2011.

USACE. 2012c. Non-self Propelled Tanker Liquid Barge Trips 2003-2007. Cape Cod Canal. U.S. Army Corps of Engineers. Accessed at: http://www.ndc.iwr.usace.army.mil//wcsc/webpub/Part1WtwyTrips_VessType_YR_Dir_DraftCY2007-2003.HTM. 12/2011.

U.S. Coast Guard. 2007a. Buzzards Bay, MA RNA checklist. United States Coast Guard. 2007.

U.S. Coast Guard. 2007b. Regulatory Evaluation for the Final Rule Navigation and Waterways Management Improvements, Buzzards Bay, MA. [CGD01-04-133]. First Coast Guard District. Marine Safety Division, U.S. Coast Guard. May 2007.

U.S. Coast Guard. 2012. FOI response to ARCADIS inquiry on collisions and groundings in Buzzards Bay.

USFWS. 2012. Endangered Species Program Fact Sheets. Accessed at: http://ecos.fws.gov/speciesProfile /profile/speciesProfile. January 12, 2012.

USGAO. 2000. As U.S. Single Hull Oil Vessels Are Eliminated, Few Double Hull Vessels May Replace Them. RCED-00-80, May 10, 2000.

Whitehead, A., B. Dubansky, C. Bodinier, T.I. Garcia, S. Miles, C. Pilley, V. Raghunathan, J.L. Roach, N. Walker, R.B. Walter, C.D. Rice, F. Galvez. Science Applications in the Deepwater Horizon Oil Spill Special Feature: Genomic and physiological footprint of the Deepwater Horizon oil spill on resident marsh fishes. PNAS. September 26, 2011

Woods Hole Oceanographic Institution. 1998. The environmental impacts of boating. Technical Report Edited by: Richard E. Crawford, Nils E. Stolpe and Michael J. Moore. WHOI-98-03. 1998.

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Appendix A

Agency Consultation

This appendix includes the correspondence and attachments that were sent to federal agencies for EA scoping as well as the letter response that was received. The correspondence is provided in the following order:

- Response from U.S. Fish and Wildlife Service, New England Field Office, dated January 17, 2012
- Letter to the U.S. Fish and Wildlife Service, dated December 23, 2012 (with attachments)
- Letter to the National Marine Fisheries Service, dated December 23, 2012
- Letter to the Massachusetts Historical Commission, dated December 23, 2012

Note that the attachments to the letters sent to the agencies were identical and are provided only once in this appendix.

Rec. 1-23-2012

United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
http://www.fws.gov/newengland

January 17, 2012

Ms. Barbara Mohrman
Arcadis U.S., Inc.
326 First Street, Suite 200
Annapolis, MD 21403

Dear Ms. Mohrman:

This responds to your December 23, 2011 letter, requesting that we provide information on the presence of federally endangered or threatened species in the Buzzards Bay area for the preparation of an Environmental Assessment to assess revisions to the Regulated Navigation Area. Our comments are provided in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531, *et seq.*).

Based on information currently available to us, federally threatened piping plover and endangered roseate tern breeding and fall staging habitat is present within Buzzards Bay. These two species can be found generally between April through the end of September. The red knot, a federal candidate, is known to migrate through the Buzzards Bay area during the southward migration in the fall. No other federally listed or proposed species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area.

Thank you for your cooperation. Please contact Susi von Oettingen of this office at 603-223-2541, extension 22, if you have any questions or need additional assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

cc: L. Dhlopolsky, USCG
J. Mauro, USCG

ARCADIS
Infrastructure · Water · Environment · Buildings

ARCADIS U.S., Inc.
328 First Street, Suite 200
Annapolis, Maryland 21403
Tel 410 295 1205
Fax 410 295 1225

Mr. Tony Tur
United States Fish and Wildlife Service
70 Commercial Street, Suite 300
Concord, NH 03301-5087

Subject:
U.S. Coast Guard, First Coast Guard District
Buzzards Bay, Massachusetts
Consultation Request

Date:
December 23, 2011

Contact:
Barbara Mohrman

Phone:
410-295-1205 X15

Email:
barbara.mohrman@arcadis-us.com

Our ref:
MA0011480001

Dear Mr. Tur:

On behalf of the United States Coast Guard (USCG), First Coast Guard District, and in compliance with Section 7 of the Endangered Species Act (16 U.S.C. §1531 et seq.), ARCADIS, U.S., Inc. (ARCADIS) is informing you that the USCG will be preparing an Environmental Assessment (EA) to assess revisions to the previously established Regulated Navigation Area (RNA) on Buzzards Bay, Massachusetts.

The RNA governs maritime transport of petroleum products and other hazardous materials on Buzzards Bay and imposes certain requirements on single-hulled tank barges transiting New England waters, including Buzzards Bay. The EA is being prepared to analyze specific alternatives to the USCG's 2007 Final Rule for further reducing the potential for incidents that could result in the discharge or release of oil or hazardous material to Buzzards Bay, resulting in serious harm to navigable waters or natural features of the Bay, including fish and wildlife.

Table 1 presents a summary of the EA alternatives to be considered in the EA. The EA will evaluate the potential impacts from the imposition of these alternative navigation requirements on commercial vessel operators, as well as the effectiveness of these requirements in reducing the possibility of petroleum and other hazardous material releases. No physical changes to the Bay or coastline are being proposed under the RNA alternatives, and therefore no such changes are being reviewed in the EA. We propose to include summary information on the potential effects of a petroleum or other hazardous material release on fisheries and the environment with the majority of material incorporated into the EA by reference to existing studies and publications.

Imagine the result

ARCADIS

Mr. Tony Tur
December 23, 2011

The geographic bounds of Buzzards Bay that will be regulated by any revisions to the RNA, and therefore are the subject of the USCG EA, are from Sakonnet Point southward to the north end of the Buzzards Bay traffic separation zone, to the southwestern tip of Cutty Hunk Island through Buzzards Bay to the eastern entrance of the Cape Code Canal. Woods Hole Passage and Quicks Hole are also included in the EA study area. Figure 1 shows the location and boundaries of Buzzards Bay to be considered in the EA.

Please contact me at 410.295.1205, Ext. 15 or barbara.mohrman@arcadis-us.com with any questions about the EA. We also invite your comments on any aspect of petroleum and hazardous material transportation regulation on Buzzards Bay as it relates to USFWS programs.

Sincerely,

ARCADIS U.S., Inc.

Barbara Mohrman
Principal Scientist

Attachments:

Table 1, Figure 1

Copies:
John Mauro, USCG
Luke Dlhopolsky, USCG
Charles Castelluccio, ARCADIS

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ARCADIS
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ARCADIS U.S., Inc.
326 First Street, Suite 200
Annapolis, Maryland 21403
Tel 410 295 1205
Fax 410 295 1225

Mr. Peter Colosi
Assistant Regional Administrator
National Marine Fisheries Service
55 Great Republic Drive
Gloucester, MA 01930

Subject:
U.S. Coast Guard, First Coast Guard District
Buzzards Bay, Massachusetts
Consultation Request

Date:
December 23, 2011

Contact:
Barbara Mohrman

Phone:
410-295-1205 X15

Email:
barbara.mohrman@arcadis-us.com

Our ref:
MA0011480001

Dear Mr. Colosi:

On behalf of the United States Coast Guard (USCG), First Coast Guard District, and in compliance with Section 7 of the Endangered Species Act (16 U.S.C. §1531 et seq.) and the Magnuson Stevens Fishery Conservation and Management Act (PL 94-265), ARCADIS, U.S., Inc. (ARCADIS) is informing you that the USCG will be preparing an Environmental Assessment (EA) to assess revisions to the previously established Regulated Navigation Area (RNA) on Buzzards Bay, Massachusetts.

The RNA governs maritime transport of petroleum products and other hazardous materials on Buzzards Bay and imposes certain requirements on single-hulled tank barges transiting New England waters, including Buzzards Bay. The EA is being prepared to analyze specific alternatives to the USCG's 2007 Final Rule for further reducing the potential for incidents that could result in the discharge or release of oil or hazardous material to Buzzards Bay, resulting in serious harm to navigable waters or natural features of the Bay, including fish and wildlife and essential fish habitat (EFH).

Table 1 presents a summary of the alternatives to be considered in the EA. The EA will evaluate the potential impacts from the imposition of these alternative navigation requirements on commercial vessel operators, as well as the effectiveness of these requirements in reducing the possibility of petroleum and other hazardous material releases. No physical changes to the Bay or coastline are being proposed under the RNA alternatives, and therefore no such changes are being reviewed in the EA. We propose to include summary information on the potential effects of a petroleum or other hazardous material release on fisheries and the environment with the majority of material incorporated into the EA by reference to existing studies and publications.

ARCADIS

Mr. Peter Colosi
December 23, 2011

The geographic bounds of Buzzards Bay that will be regulated by any revisions to the RNA, and therefore are the subject of the USCG EA, extend from Sakonnet Point southward to the north end of the Buzzards Bay traffic separation zone, to the southwestern tip of Cutty Hunk Island through Buzzards Bay to the eastern entrance of the Cape Code Canal. Woods Hole Passage and Quicks Hole are also included in the EA study area. Figure 1 shows the location and boundaries of Buzzards Bay to be considered in the EA.

Please contact me at 410.295.1205, Ext. 15 or barbara.mohrman@arcadis-us.com with any questions about the EA. We also invite your comments on any aspect of petroleum and hazardous material transportation regulation on Buzzards Bay as it relates to NMFS programs.

Sincerely,

ARCADIS U.S., Inc.

Barbara Mohrman
Principal Scientist

Attachments:

Table 1, Figure 1

Copies:
John Mauro, USCG
Luke Dihopolsky, USCG
Charles Castelluccio, ARCADIS

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ARCADIS U.S., Inc.
326 First Street, Suite 200
Annapolis, Maryland 21403
Tel 410 295 1205
Fax 410 295 1225

Ms. Brona Simon
SHPO & Executive Director
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125

Subject:
U.S. Coast Guard, First Coast Guard District
Buzzards Bay, Massachusetts
Project Notification Form

Date:
December 23, 2011

Contact:
Barbara Mohrman

Phone:
410-295-1205 X15

Email:
barbara.mohrman@arcadis-us.com

Our ref:
MA0011480001

Dear Ms. Simon:

On behalf of the United States Coast Guard (USCG), First Coast Guard District, and in compliance with Section 106 of the National Historic Preservation Act, ARCADIS, U.S., Inc. (ARCADIS) is informing you that the USCG will be preparing an Environmental Assessment (EA) to assess the potential for environmental impacts from revisions to the previously established Regulated Navigation Area (RNA) on Buzzards Bay, Massachusetts.

The current RNA governs maritime transport of petroleum products and other hazardous materials on Buzzards Bay and imposes certain requirements on single-hulled tank barges transiting New England waters, including Buzzards Bay. The EA is being prepared to analyze alternatives to the USCG's 2007 Final Rule for further reducing the potential for incidents that could discharge or release oil or hazardous material to Buzzards Bay resulting in serious harm, to navigable waters, natural features of the Bay or other resources, including those with cultural significance.

Table 1 presents a summary of the EA alternatives to be considered in the EA. The EA will evaluate potential impacts resulting from imposition of alternative navigation requirements on commercial vessel operators as well as the effectiveness of these requirements in reducing the possibility of petroleum and other hazardous material releases. No physical changes to the Bay or coastlines are being proposed under the RNA alternatives and therefore no such changes are being reviewed in the EA.

ARCADIS

Ms. Brona Simon
December 23, 2011

The area of potential effect (APE), defined as the geographic bounds of Buzzards Bay that will be regulated by any revisions to the RNA and therefore is the subject of the USCG EA, extends from Sakonnet Point southward to the north end of the Buzzards Bay traffic separation zone, to the southwestern tip of Cutty Hunk Island through Buzzards Bay to the eastern entrance of the Cape Cod Canal. Woods Hole Passage and Quicks Hole are also included in the study area. Figure 1 shows the location and boundaries of the APE.

As defined under 36 CFR 800.16(y) the intended regulatory action by the Coast Guard qualifies as an "undertaking". However, pursuant to 36 CFR 800.3(a)(1), the USCG has determined that while the intent of this action is to reduce the potential for impacts to resources that exist on the coast or within Buzzards Bay, it will not directly, or indirectly, affect cultural resources. The EA will note this "no effect" determination and no further analysis of effects on historic or cultural resources is anticipated. Your comments regarding this determination are invited in accordance with Section 106 of the National Historic Preservation Act.

Please contact me at 410.295.1205, Ext. 15 or barbara.mohrman@arcadis-us.com with any questions you may have regarding this determination or the EA. We will notify you when the EA is available.

Sincerely,

ARCADIS U.S., Inc.

Barbara Mohrman
Principal Scientist

Enclosures:
Table 1, Figure 1

Copies:
John Mauro, USCG
Luke Dihopolsky, USCG
Charles Castelluccio, ARCADIS

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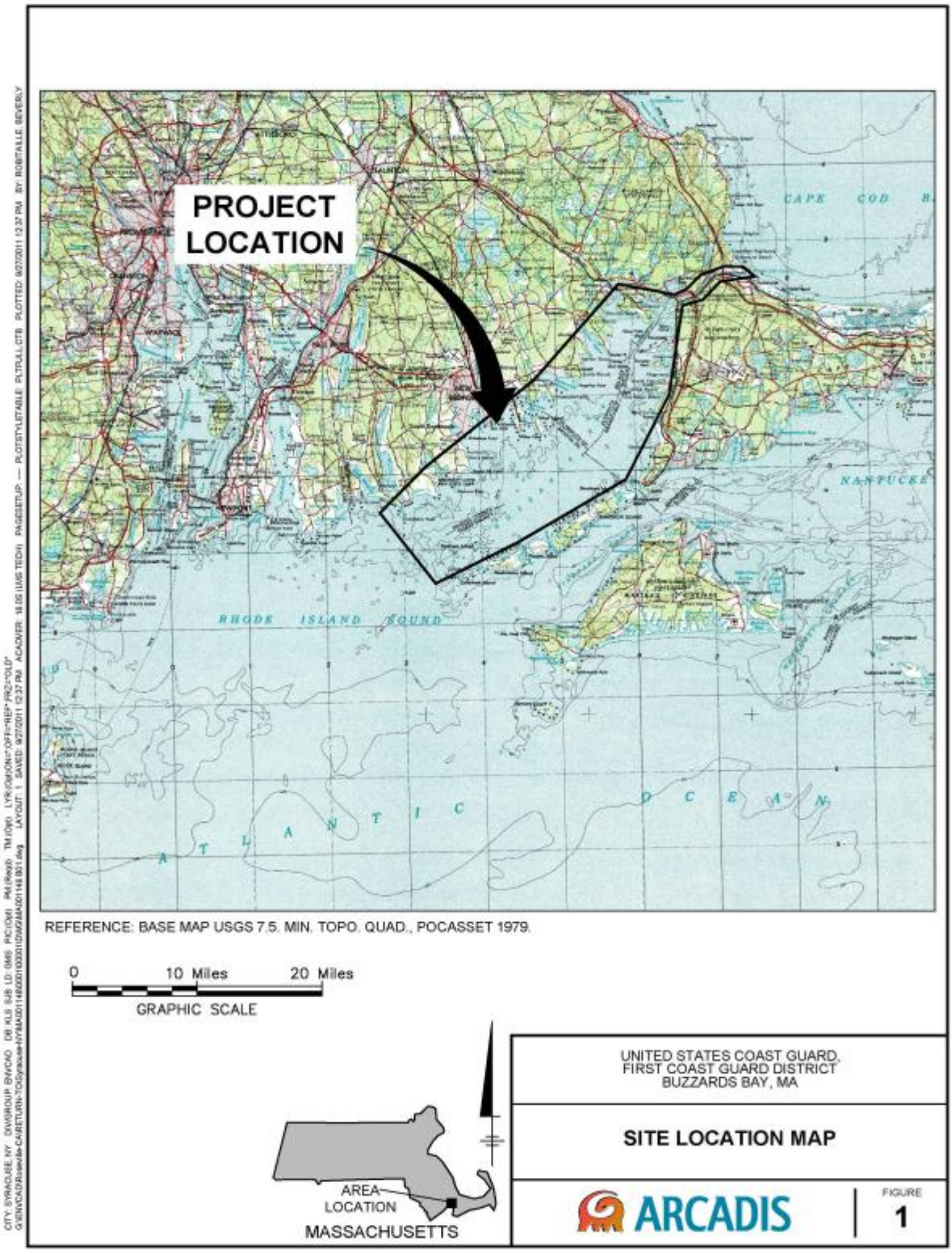
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MASSACHUSETTS
UNITED STATES COAST GUARD
FIRST COAST GUARD DISTRICT
BUZZARDS BAY, MA
SITE LOCATION MAP
ARCADIS
FIGURE
1

Table 1 Alternatives Considered in this EA

Five primary alternatives are considered in this EA. Alternative 1 is a no action alternative in which navigation in Buzzards Bay would follow the U.S. Coast Guard regulations that were in effect prior to the promulgation of the August 30, 2007 Final Rule amending the Regulated Navigation Area (RNA).

Table ES-1. Alternatives

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	Pilot				
Alternative 1 (No Action)	• Escort tug required for single hull barges carrying bulk petroleum cargo and being towed by a single–screw tug and for any vessel engaged in towing any tank barge in the event of a casualty that impairs navigation and/or seaworthiness of the barge. • Any tank barge with a capacity of <25,000 barrels operating in limited depth/width or any tank barge whose operator demonstrates the employment of an equivalent amount of safety to that provided by an escort tug is exempt from the escort tug requirement.	• None	• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• Every vessel towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.	• Towing vessel owner/operator must prepare a written voyage plan for each transit.	• None

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				
Alternative 2	• Escort tug required for all tank barges carrying **≥6,000** barrels of petroleum if not self-propelled. • Any tank barge with a capacity of <25,000 barrels operating in limited depth/width or any tank barge whose operator demonstrates the employment of an equivalent amount of safety to that provided by an escort tug is exempt from the escort tug requirement with authorization from the Captain of the Port (COTP).	• State-licensed pilot required if tank barge not accompanied by an escort tug. • The tow barge master is not required to allow the pilot onboard, therefore, pilot may have to direct and control primary tow vessel from aboard the escort tug.	• Towing barges carrying **≥6,000** barrels of oil (no other petroleum products specified) must have onboard one licensed deck officer or barge operator serving as lookout and three licensed officers or tow vessel operators on tow vessel. (Only applicable to barges carrying oil.) • Tank barges must have onboard at all times one certified tanker-man and one other crew member.	• Towing vessels must report to the Vessel Traffic System (VTS) and maintain communication / radio monitoring. • Must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places including Buzzards Bay Entrance Light, Buzzards Bay Mid-channel Light, and Cleveland East Ledge Light.	• Same as Alternative 1. Towing vessel owner/operator must prepare a written voyage plan for each transit.	• Mandatory travel within U.S. Coast Guard designated vessel route unless special circumstances require diversion to avoid imminent navigation hazard.

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				

--------Alternative 3a	• Escort tug required for single hull tank barges carrying **≥5,000** barrels.
	• Same escort tug exemption as Alternative 1.
		• Federal pilot, not a member of the crew, required for all single hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• All Tank barges transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible
				  • Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner/operator must prepare a written voyage plan for each transit.	• U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				

Alternative 3b	• Escort tug required for single **and** double hull tank barges carrying **≥5,000** barrels of oil or other hazardous.
	• Same escort tug exemption as Alternative 1.
		• Federal pilot, not a member of the crew, required for single hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• Same as Alternative 2. Towing barges carrying **≥6,000** barrels of oil (no other petroleum products specified) must have onboard one licensed deck officer or barge operator serving as lookout and three licensed officers or tow vessel operators on tow vessel. (Only applicable to barges carrying oil.)
			• Tank barges must have onboard at all times one certified tanker-man and one other crew member.
				• Same as Alternative 3a. All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• Tank barges transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible
				• Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner/operator must prepare a written voyage plan for each transit.	• Same as Alternative 3a. U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				

Alternative 4	• Escort tug required for single **and** double hull tank barges (not tank ships) carrying **≥5,000** barrels of oil or other hazardous substance.
	• Same escort tug exemption as Alternative 1.
		• Federal pilot, not a member of the crew, required for single **and** double hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• Same as Alternative 3a. All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• Tank barges transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone.
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible.
				  • Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner/operator must prepare a written voyage plan for each transit.	• Same as Alternative 3a. U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

	Positive Control		Manning	Communications	Voyage Planning	Restricted Navigation
	Size/Escort Tug	**Pilot**				

Alternative 5	• Same as Alternative 3a.	• Same as Alternative 3a. Federal pilot, not a member of the crew, required for all single hull tank barges carrying **≥5,000** barrels of oil or other hazardous substance.
		• The pilot must direct and control from the primary towing vessel.
			• No additional manning requirements beyond U.S. Code and Code of Federal Regulations (CFR).	• All vessels towing a tank barge must communicate on VHF 13 or 16 and issue security calls when approaching one of 21 specified places.
				• Tank barges carrying **≥5,000** barrels of oil or other hazardous substance transiting VMRS Buzzards Bay that are equipped with bridge-to-bridge radiotelephone.
				  • Must not enter or get underway without notifying VRMS.
				  • May not enter VMRS Buzzards Bay if a Hazardous Vessel Operating Condition exists.
				  • Must use the shortest, safest tow hawser possible.
				  • Must communicate using bridge-to-bridge radiotelephone before meeting, crossing, or overtaking another VMRS user.
					• Same as Alternative 1. Towing vessel owner/operator must prepare a written voyage plan for each transit.	• Same as Alternative 3a. U.S. Coast Guard recommends but does not mandate use of vessel routes on navigation charts.

Appendix B

CFR Listing of the RNA prior to the 2007 Final Rule

(xvi) Buzzards Bay Midchannel Lighted Buoy (LLNR 16055)

(xvii) Cleveland East Ledge Light (LLNR 16085).

(xviii) Hog Island buoys 1 (LLNR 16130) and 2 (LLNR 16135).

(xix) Approach to the Bourne Bridge.

(xx) Approach to the Sagamore Bridge.

(xxi) Approach to the eastern entrance of Cape Cod Canal.

(3) *Voyage planning.* (i) Each owner or operator of a towing vessel employed to tow a tank barge shall prepare a written voyage plan for each transit of the tank barge.

(ii) The watch officer is authorized to make modifications to the plan and validate it as necessary.

(iii) Except as provided in paragraph (d)(3)(iv) of this section, each voyage plan must contain:

(A) A description of the type, volume, and grade of cargo.

(B) Applicable information from nautical charts and publications, including Coast Pilot, Coast Guard Light List, and Coast Guard Local Notice to Mariners, for the destination(s).

(C) Current and forecasted weather, including visibility, wind, and sea state for the destination(s).

(D) Data on tides and tidal currents for the destination(s).

(E) Forward and after drafts of the tank barge, and under-keel and vertical clearances for each port and berthing area.

(F) Pre-departure checklists.

(G) Calculated speed and estimated times of arrival at proposed waypoints.

(H) Communication contacts at Vessel Traffic Service (VTS) (if applicable), bridges, and facilities, and port-specific requirements for VHF radio.

(I) The master's standing orders detailing closest points of approach, special conditions, and critical maneuvers.

(iv) Each owner or operator of a tank barge on an intra-port transit of not more than four hours may prepare a voyage plan that contains:

(A) The information described in paragraphs (d)(3)(iii)(D) and (E) of this section.

(B) Current weather conditions including visibility, wind, and sea state. This information may be entered in either the voyage plan or towing vessel's log book.

(C) The channels of VHF radio to monitor.

(D) Other considerations such as availability of pilot, assist tug, berth, and line-handlers, depth of berth at mean low water, danger areas, and securité calls.

(4) *Navigation restriction areas.* Unless authorized by the cognizant COTP, no tank barge may operate in—

(i) The waters of Cape Cod Bay south of latitude 42°5′ North and east of longitude 70°25′ West; or

(ii) The waters of Fishers Island Sound east of longitude 72°2′ West, and west of longitude 71°55′ West.

(e) In addition to the authority for this part 165, this section is also authorized under authority of section 311, Pub. L. 105–383.

[CGD1–98–151, 63 FR 71770, Dec. 30, 1998, as amended by CGD01–98–151, 64 FR 12749, Mar. 15, 1999; USCG–1999–5832, 64 FR 34715, June 29, 1999; CGD01–98–151, 65 FR 35838, June 6, 2000]

§ 165.101 Kittery, Maine—regulated navigation area.

(a) The following is a regulated navigation area—Waters within the boundaries of a line beginning at 43°04′50″N, 70°44′52″W; then to 43°04′52″N, 70°44′53″W; then to 43°04′59″N, 70°44′46″W; then to 43°05′05″N, 70°44′32″W; then to 43°05′03″N, 70°44′30″W; then to the beginning point.

(b) Regulations—No vessel may operate in this area at a speed in excess of five miles per hour.

§ 165.102 Security Zone: Walkers Point, Kennebunkport ME.

(a) *Location.* The following area is a security zone: From point of land located on Cape Arundel at latitude 43°20.4′ North, longitude 070°28.0′ West; thence to a point approximately 500 yards southwest of Walkers Point located at latitude 43°20.2′ North, longitude 070°27.9′ West; thence to a point located approximately 500 yards south of Walkers Point at latitude 43°20.1′ North, longitude 070°27.6′ West; thence to a point located approximately southeast of Walkers Point at latitude 43°20.4′ North, longitude 070°27.2′ West; thence to an unnamed point of land located at 43°20.9′ North, longitude

APPENDIX C

United States Coast Guard, First Coast Guard District

Environmental Assessment: Revisions to the Regulated Navigation Area

Mailing List: Interested Parties

Federal Agencies

National Marine Fisheries Service 55 Great Republic Drive Gloucester, MA 01930	**United States Environmental Protection Agency** **Region** 1 Attn: NEPA Coordinator 5 Post Office Square - Suite 100 Boston, MA 02109-3912
U.S. Fish and Wildlife Service **Regional Office** Wendi Weber, Regional Director 300 Westgate Center Drive Hadley, MA 01035-9587	**Southeastern Regional Planning and Economic Development District** 88 Broadway Taunton, MA 02780
US Army Corps of Engineers, New England Division 696 Virginia Road Concord, MA 01742-2751	

State Agencies

Seth Schofield, Assistant Attorney General **Environmental Protection Division** Office of the Attorney General One Ashburton Place Boston, MA 02108-1598	**Natural Heritage and Endangered Species Program Mass Division of Fisheries and Wildlife** 1 Rabbit Hill Road Westborough, MA 01581
State Historic Preservation Office **Massachusetts Historical Commission** 222 Morrissey Boulevard Boston, MA 02125-3314	**Massachusetts Division of Marine Fisheries** Paul J. Diodati, Director 251 Causeway St, Suite 400 Boston, MA 02114

Massachusetts Office of Coastal Zone Management Bruce K. Carlisle, Director 251 Causeway ST, Suite 800 Boston, MA 02114-2138	**Commonwealth of Massachusetts Executive Office of Environmental Affairs Department of Environmental Protection** One Winter Street Boston, MA 02108
Massachusetts Division of Conservation and Recreation Stephen C. Smith, Executive Director 88 Broadway Taunton, MA 02780	

Municipalities

Town of Acushnet Kevin Gaspar, Sr., Chairman Board of Selectmen 122 Main Street Acushnet, MA 02743	**Town of Bourne** Thomas Guerino, Town Administrator 24 Perry Avenue, Room 101 Buzzards Bay, MA 02532-3441
City of New Bedford Mayor Scott W. Lang Office of the Mayor City Hall, Room 311 133 William Street New Bedford, MA 02740	**Town of Falmouth** Julian M. Suso, Town Manager 59 Town Hall Square Falmouth, MA 02540
New Bedford Harbor Development Commission Kristin Decas, Executive Director 52 Fisherman's Wharf PO Box 50899 New Bedford, MA 02745	**Town of Dartmouth** David G. Cressman, Executive Administrator Town Hall, Room 303 400 Slocum Road Dartmouth, MA 02747
Town of Westport Westport Town Hall Mr. Richard M. Spirlet, Chairman Board of Selectmen 816 Main Road Westport, MA 02790	**Town of Gosnold** 28 Tower Hill Road Cuttyhunk Island, MA 02713
Town of Mattapoisett Michael J. Gagne, Town Administrator P.O. Box 435 Mattapoisett, MA 02739	**Wampanoag Tribe of Gay Head** Cheryl Andrews-Maltais, Chairwoman 20 Black Brook Road Aquinnah, MA 02535-1546

Boards of County Commissioners

Dukes County Tristan Israel, Chairman Dukes County Commissioners P. O. Box 190 Edgartown, MA 02539	**Barnstable County** Mary Pat Flynn, Chair Barnstable County Commissioners Superior Courthouse P.O. Box 427 Barnstable, MA 02630
Plymouth County Anthony O'Brien Board of Commissioners 11 South Russell Street Plymouth, MA 02361	**Bristol County Commissioners** Taunton Superior Courthouse 9 Court Street Taunton, MA 02780

NGO's

The American Waterways Operators 801 North Quincy Street, Suite 200 Arlington, VA 22203	**Coalition for Buzzards Bay** Mark Rasmussen, President/Buzzards Baykeeper 114 Front Street New Bedford, MA 02740
MA Board of Underwater Archaeological Resources 251 Causeway Street, Suite 800 Boston, MA 02114-2199	**Dr. Kristopher M. Moore, Executive Director Mid-Atlantic Fishery Management Council** 800 N. State Street, Suite 201 Dover, DE 19901

Libraries

New Bedford Free Public Library 613 Pleasant Street New Bedford, MA 02740	**Wareham Free Library** 59 Marion Road Wareham, MA 02571
Westport Free Public Library 408 Old County Rd Westport, Massachusetts 02790	**Plymouth Public Library** 132 South Street Plymouth, MA 02360
Elizabeth Taber Library P.O. Box 116 Marion, MA 02738	**Gosnold Public Library** Cuttyhunk Island, MA 02713
Jonathan Bourne Public Library 19 Sandwich Road Bourne, MA 02532	**Mattapoisett Free Public Library** 7 Barstow Street, P.O. Box 475 Mattapoisett, MA 02739
Falmouth Public Library 300 Main Street Falmouth, MA 02540	**Dartmouth Public Libraries** 1383 Tucker Road North Dartmouth, MA 02747
The Millicent Library 45 Center Street Fairhaven, MA 02719	**Dartmouth Public Libraries** 732 Dartmouth Street South Dartmouth, MA 02748
Russell Memorial Library 88 Main Street Acushnet, MA 02743	

Newspapers

Cape Cod Times 319 Main St. Hyannis, MA, 02601	**The Boston Herald** One Herald Square Boston, MA 02118
The Boston Globe P.O. Box 55819 Boston, MA 02205-5819	

APPENDIX D

Buzzards Bay Draft EA Consolidated Comments and Responses to Comments

COMMENTS	RESPONSES –
1. (a) The USCG should require the strictest protection possible for Buzzards Bay and require a pilot and escort tug for both single and double hull barges. Redundant layers of safety and protection are necessary to reduce the likelihood of another oil spill in the Bay. Alternative 4 provides the safest and most cost effective option and should be the choice.	(a) The Coast Guard has long been committed to preserving the history, beauty, resources, and environmental and economic values of the Massachusetts coastline. Navigation safety, vessel safety, and oil spill response missions are some of the Coast Guard's most important functions, and through those efforts we serve the public by supporting efficient commercial maritime transportation. These functions are reflected in the 2007 Final Rule to implement amendments to the Regulated Navigation Area (RNA) existing at that time. (See also 1.(b) below)
(b)A related Comment: Safety requirements necessary to protect BBay: (1) Escort tug for all barges carrying oil in bulk; (2) Increased pilot requirements; (3) Increased manning; (4) Required navigation route; (5) Vessel monitoring system {Ed. Note: This regime is actually more similar to Alternative 2 than to Alternative 4.}	(b) The Environmental Assessment, prepared in 2012 to correct the NEPA procedural deficiency which occurred when the amendments were implemented in 2007, compares the reasonable alternative amendment scenarios and identifies the alternative which was expected at that time to produce significant reduction in risk of a release of hazardous cargo to Buzzards Bay through the measured use of operational controls and increased tank vessel structural integrity. It is the Coast Guard's determination that Alternative 3a (the 2007 Final Rule) struck the proper balance at the time it was promulgated in 2007. More recently, the Coast Guard and Mass DEP contracted for a technical risk study and evaluation of measures that may further reduce the level of potential risk of an oil spill in Buzzards Bay and the Cape Cod Canal. The report evaluates the risk reduction benefits and any associated environmental, economic, or other quantitative or qualitative costs of the use of marine pilots and tugboat escorts for all towing vessels with laden tank barges, regardless of whether they are single-hulled or double-hulled, by addressing: • Analysis of oil spill probabilities from double-hull tank barges • Analysis of potential consequences of oil spills

	• Evaluation of risk mitigation costs and benefits associated with a requirement for federally-licensed pilots; • Evaluation of risk mitigation costs and benefits associated with a requirement for escort vessels. • The results of this Risk Assessment will be used to help inform the future rulemaking effort.
2. (a) The use of the pre-2007 RNA as the baseline and the No Action Alternative based on the pre-2007 baseline is flawed. Two federal courts have already determined that the No Action alternative is erroneous. A FONSI based on that baseline and No Action Alternative is therefore flawed. A related comment notes that the First Circuit court also agreed the NEPA corrected analysis must consider the effects of "displacing the Commonwealth's regulatory regime".	(a) The U.S. Court of Appeals for the First Circuit found that, by relying upon a Categorical Exclusion instead of more in depth NEPA analysis, the Coast Guard failed to adequately study or analyze the environmental impact of its action as required by NEPA when the 2007 Final Rule was promulgated. Categorical Exclusions do not contain an analysis of alternatives; therefore a no-action alternative was not evaluated by the Coast Guard or in the Courts' review. The Court referred to the displacement of the Commonwealth's regulatory regime only in the context of assessing the level of controversy associated with the 2007 RNA amendments. The Court did not attempt to prescribe the specific content of subsequent environmental analysis.
(b) MOSPRA provisions were in place and in effect at the time the 2007 RNA was finalized. It is against that regulatory regime that the alternatives should be measured. Because the proposed action would likely have a significant impact on the human environment by increasing the risk of an oil spill in Buzzards, Bay, NEPA mandates the preparation of a thorough and objective EIS.	(b) As ordered by the Court, the Coast Guard prepared the Draft Environmental Assessment in order to correct the deficiency in its previous NEPA process. The federal regulatory regime in place at that time was the 1998 RNA which served as the baseline for the analysis in the EA. The level of protection afforded by the MOSPRA provisions that were in place in 2007 was evaluated as alternative number # 2 in the draft EA. Elevating the complexity of the NEPA document to an EIS would not result in a significantly different analytical result with regard to the amendments implemented in 2007.
(c) Another related comment: The district court (also) agreed that the CG had erred in comparing the proposed federal regulations (2007 RNA) only to the then existing federal regs rather than to the MOSPA provisions already in force.	(c) The Coast Guard does not find this statement in the District Court ruling. Instead, as transcribed in the U.S. Court of Appeals for the First Circuit ruling: "On de novo review, the District Court (Woodlock, J.) found a NEPA violation, but concluded that this violation was "essentially harmless" because "the substance of the Coast Guard's actual rulemaking analysis was the functional equivalent of what an environmental impact

	statement would have generated." United States v. Massachusetts, 724 F. Supp. 2d 170, 174-75 (D. Mass. 2010). The court proceeded to overrule the Commonwealth's other objections, found preemption appropriate, entered a declaratory judgment for the Coast Guard, and permanently enjoined enforcement of the controverted portions of the state statute [MOSPRA].
3. The draft EA appears to be designed to justify the decision the USCG made over five years ago rather than be a means to objectively compare various alternatives to the status quo. Recent media statements made by the USCG further illustrate that this Draft EA was not meant to be a complete and objective analysis of environmental impacts.	This Environmental Assessment (EA) was only intended to address the action taken five years ago in order to correct a procedural deficiency that occurred in the Coast Guard's NEPA implementing procedures at that time. Analysis in the EA was conducted as objectively as possible for this unusual NEPA document which addresses a past action. The Coast Guard will conduct additional NEPA review and prepare appropriate documentation to demonstrate complete and objective analysis of environmental impacts for any new future amendments proposed to the existing Buzzards Bay RNA that has been in effect since 2007. Such future proposed amendments may be developed after review of the January 22, 2013 Buzzards Bay Risk Assessment (RA).
4. States should be permitted to impose requirements tailored to their particular facts. A second purpose of the 2007 Final Rule was purportedly to preempt the MOSPA, but the purpose and need section of the Draft EA is silent on whether this continues to be one of the USCG's purposes.	This Environmental Assessment was prepared to address the deficiency in the Coast Guard's NEPA process for the 2007 Final Rule, as identified by the First Circuit. The 2007 rulemaking clearly articulated the Coast Guard's belief that by operation of law and our Agency determination, State law was preempted on the subjects covered by that rulemaking, as was our intention at the time. The Coast Guard's position remains unchanged for the 2007 rule and should any future amendments be made to the Buzzards Bay RNA, such a rulemaking will address the agency's current position with respect to preemption.
5. (a) The USCG fails to offer a rational basis for its conclusion that the risk from double hull tank barges does not warrant the protection of a tug escort. While the USCG may feel that the risk of a release of oil resulting from a maritime accident involving double hull is small, the consequences of such a release would be so severe that thorough environmental review is necessary. The draft EA fails to provide any assessment of such catastrophic risk or quantitative data or citations of studies that support the chosen alternative.	(a)The consequences of a substantial release of petroleum product to the environment are well documented, and of paramount concern to the Coast Guard. No amount of additional environmental review will make this fact any more, or less important or relevant. The Environmental Assessment evaluated the benefit to the environment derived from positive control measures, such as tug escorts for all single hull barges (regardless of the tug propulsion configuration) as implemented by the 2007 RNA amendments. The 2007 RNA amendments

	were written to "further reduce" the potential for oil release to Buzzards Bay. There was no actual or implied claim that a double hull barge could not be breached under any possible extreme circumstances even if there was an escort tug present. However, in a 1992 report to Congress, the Coast Guard evaluated various alternative concepts to the double hull design and concluded that this design was the most effective in preventing the majority of oil spills. Further, there was no design that can prevent significant oil spillage under a severe accident scenario. Therefore, we concluded that there were no alternative designs that we could recommend as equivalent or superior to the double hull. (See also 5. (b) below)
(b) A related comment: The CG conclusion appears to be largely based on a "wholly unsupported assumption" in the DEA that double hull tank barges present "little to no risk of an oil spill causing environmental harm". The DEA says nothing to suggest that a double hull reduces the likelihood of a barge grounding. While release may be reduced in an incident involving a double hull barge, environmental harm can still result.	(b) The Coast Guard initiated a study in 1998 by the National Research Council (NRC) to assess the full impact of the double hull regulations and related requirements from section 4115 of OPA 90 on the marine environment and the maritime oil transportation industry. The NRC convened the Committee on the Oil Pollution Act of 1990 (Section 4115) Implementation Review under the auspices of the Marine Board. With regard to the double hull design, the Marine Board found that the probabilistic outflow analysis of existing vessel designs indicates that the complete conversion of the maritime oil transportation fleet of tankers and barges to effectively designed double hulls is expected to result in significantly improved protection of the marine environment. The study also noted that 4 out of 5 oil spills attributable to collisions and groundings would be eliminated and 2/3's reduction would be realized in the total volume of oil spilled from collisions and groundings. The double hull mandate when fully implemented will have a significant and positive effect on reducing the risk and severity of oil spills. Reductions are anticipated in both the number of spills and the volume of oil spilled. In our regulatory evaluation that accompanies the rulemaking and was available in the docket (CGD01-04-133), the CG projects that the demand for escort tugs will decrease over time as progressively fewer transits of Buzzards Bay are made by single hull tank barges.
(c) And another related comment: The DEA fails to "find out whether there is some possible effect from the action that, while improbable, would	(c) Even the most stringent safety measures that could be applied to navigation on Buzzards Bay do not carry with them a

be so serious if it occurred that further review is appropriate.	guarantee that a release of oil would never occur. However, in terms of incremental improvement, the 2007 RNA amendments focused the additional navigation safety measure (escort tug) on the equipment (all single hull barges) that would be more likely to release their cargo than their double hull counterparts under the same incident circumstances. In this way, greater safety was provided when compared to the federal navigation requirements implemented in 1998. Furthermore, neither the 2007 amendments nor the 2012 EA which analyzed this past action asserted that double hull barges alone are enough to measurably improve navigation safety and reduce the potential for oil spills on Buzzards Bay. The 2007 preferred alternative (3a) adds a federal pilot to the single hull barge tow in recognition that an escort tug alone would not be effective in preventing all types of marine casualties. Alternative 3(a) also includes enhanced communication between all vessels and notification to the VMRS system. Better communication between vessels is intended to decrease the potential for vessel to vessel collisions which history has shown characteristically result in the most catastrophic failure of any tank vessel's integrity. The Coast Guard and Mass DEP contracted for a technical risk assessment and evaluation of measures that may even further reduce the level of potential risk of an oil spill in Buzzards Bay and the Cape Cod Canal. That report released on January 22, 2013, evaluates the risk reduction benefits and any associated environmental, economic, or other quantitative or qualitative costs of the use of marine pilots and tugboat escorts for all towing vessels with laden tank barges, regardless of whether they are single-hulled or double-hulled, by addressing: • Analysis of oil spill probabilities from double-hull tank barges • Analysis of potential consequences of oil spills • Evaluation of risk mitigation costs and benefits associated with a requirement for federally-licensed pilots and • Evaluation of risk mitigation costs and benefits

	associated with a requirement for escort vessels.

6. The Draft EA fails to address the issue of whether a double hull would have prevented the Bouchard-120 oil spill or the 1996 North Cape spill. The USCG should conduct this analysis for both of these spills.	The releases from both Bouchard-120 and the North Cape spill were the result of a breach in the single hull of the involved tank vessel. Additionally the master of the B-120 was not on the bridge at the time of the grounding. Investigations into both casualties were conducted following those incidents. While there is insufficient data to definitively conclude the answer to this question, in an OPA 90 implementation review conducted by the Commission on Engineering and Technical Systems, the National Research Council stated that: "All cargo oil tanks on a double-hull tanker built to OPA 90 requirements are protectively located. Many of the damage cases that would result in oil spillage on single-hull tankers will not penetrate the cargo tanks of double-hull tankers. Double-hull tankers will have fewer accidents involving oil spillage. The mean or expected oil outflow from a casualty will usually be less with a double-hull tanker as compared to a single-hull tanker of the same size."

7. (a) Alternative 3a does not meet the stated purpose and need for the action. By providing less protection than MOSPA, rather than reducing the probability of an incident, the 2007 RNA would increase the probability of an incident occurring.	(a) The "purpose and need" for the action taken in 2007 to amend the pre-2007 Buzzards Bay federal Regulated Navigation Area (RNA) was to "further reduce" the potential for oil spills on the Bay. The 2007 amendments built upon the existing federal regulation and did not address State or local requirements. The current Environmental Assessment analyzed six alternatives in order to evaluate which one best met the purpose and need. The requirements represented in Alternative 3.a (selected as the "preferred alternative" at that time) did add measures to improve navigation safety that were not included in the federal regulation that was in effect before 2007, thereby meeting the purpose and need.
(b) The report fails to consider the on-going operations which are reported in the Commonwealth's findings (MOSPRA 2011 Report), which indicate that requiring all vessels to use the services of an escort tug will reduce the likelihood of an oil spill. (c)) Studies for other water bodies has also concluded that requiring escorts for double hull barges provides an additional meaningful reduction in risk. <u>(d) Related comment</u> states: Clearly the CG is not focused on preventing a grounding or collision in the first place, but solely relying on a double hull to prevent a release. <u>(e) Another related comment</u>: Requiring Tug Escorts for ALL vessels will increase the requests for assistance and accordingly, (increase) safety in BuzBy. A MOSPA 2011 Report notes sixteen occasions between	(b) Your comment is noted. We recognize that new data has been collected and additional studies have been completed since the 2007 rule was published. Additionally, we recognize that the subsequent data and studies, while informative, have to be balanced against the court's direction to correct the deficiency in the NEPA process for the 2007 RNA, in order to complete the 2007 rulemaking. To do so required that the EA consider, to the greatest extent possible, the world as it was in 2007. Moreover, since this EA was written to document in more detail, the environmental review conducted when the 2007 amendments were being proposed, it cannot properly draw conclusions based upon information that was developed subsequent to that time. (c) Without knowing the identity of the water bodies or the related studies referenced in this comment, we cannot address it since the nature of the waterway and the navigation variables in different locations must be taken into consideration when making such comparisons. (d) Neither the 2007 amendments nor the 2012 EA which analyzed this past action asserted that double hull barges alone are enough to improve navigation safety on Buzzards Bay. The 2007 preferred alternative (3a) adds a federal pilot to the single hull barge tow in recognition that an escort tug alone might not always be effective in preventing all types of marine casualties. Alternative 3(a) also includes enhanced communication between all vessels and notification to the VMRS system. Better

September and December 2011 when an escorted vessel requested assistance from the tug escort that accompanied them. Clearly, Escort tugs do not present an undue burden on vessel transits.	communication concerning relative vessel positions is intended to decrease the potential for vessel to vessel collisions which experience has shown characteristically result in the most catastrophic failure of any tank vessel's integrity. (e) Your comment is noted. We recognize that new data has been collected and additional studies have been completed since the 2007 rule was published. Additionally, we recognize that the subsequent data and studies, while informative, have to be balanced against the court's direction to correct the deficiency in the NEPA process for the 2007 RNA, in order to complete the 2007 rulemaking. To do so required that the EA consider, to the greatest extent possible, the world as it was in 2007. Moreover, without an analytical breakdown of the reasons for such requests for escort tug assistance, it is difficult to assess if each occasion in fact represents a situation where without the escort tug a spill would have resulted. In addition, the mere presence of an escort tug would not always be a guarantee against certain marine incidents, for example a power grounding or allision with an uncharted underwater obstruction could occur with little or no warning for the escort tug to be able to intervene. In the end, it is the integrity of the tank vessel itself that largely determines if any incident would actually result in loss of its cargo. Lastly, it is difficult to conclude that a requirement is not a burden simply on the basis that it is being complied with or utilized in some way.
8. (a) The assertion that the preferred alternative will speed the phase out of single hulls is unsupported. This action is already mandated (in less than two years) by 2015 by the OPA. The DEA does not compare the rate of decline with or without the double hull escort tug. Another related comment noted that the draft EA did not illustrate that the cost of an escort and local pilot for double hulled barges (as required by MOSPA) would actually discourage a single hull barge owner from upgrading to a double hull barge earlier than the required changeover by the end of 2014. (Commenter questioning the cost to run a single hull barge with escort and pilot compared to the cost to run a double hull barge with the same requirements. Would the difference really be favorable enough [including the cost to replace the barge] to be an incentive to switch earlier to a double hull barge in advance of the deadline.) Without such supportive data, the conclusion is "entirely speculative".	(a) In 2002, there were nearly 10,000 commercial vessel transits and over 1,200 tank barge transits in Buzzards Bay. At that time an estimated 80% of those tank barges were single hull vessels. The concept of earlier than required phase out of single hull barges was based on the expectation that the marine transportation industry would find it more profitable to avoid the cost for an escort tug and pilot (potentially a $4575.00 saving per trip) by using more double hulled barges. In addition, at the time the 2007 RNA amendments were implemented, the mandated phase out date for single hull barges was about seven years distant.

(b) Incentive for operators to abide by existing mandate should be achieved through other mechanisms, such as additional inspection requirements or operating fees for single hull vessels.	(b) At the time the 2007 RNA amendments were written, the Coast Guard did not determine that further incentive through additional measures would significantly increase the phase out process.
(c) The incentive argument is also inconsistent with 2010 federal legislation that requires not one but two tug escorts for double hulled oil tankers operating in Prince William Sound, Alaska.	(c) The Coast Guard notes that the requirement in Alaskan waters to which the commenter refers was an act of Congress as part of the Oil Pollution Act of 1990, Pub. L. 101-380. The requirement on Alaska waters was not generated in the same manner or under the same laws and regulations as the 2007 Buzzards Bay RNA Amendments. Therefore, direct comparison between the two regulatory regimes lacks validity.
(d) A related comment: DEA should explain why CG takes a different approach to escort tugs between the west and east coasts.	(d) Similar to 9. (c) above, requirements for navigation safety are based on numerous variables particular to each location. Unless these variables are exactly the same on the waters on each coast valid comparisons cannot be made.
9. The Draft EA does not account for the fact that the preferred alternative may not occur before the OPA phase out date for single hull barge use or will occur so close to the close out date that it has no effect. A related comment added: The tug escort requirement of the (CG) preferred alternative will have only a minimal and short-lived impact on the Bay: Tug escorts and pilots will be required only until single hull barges are phased out in two years. Requirements under the 2007 RNA that will be in place for only two years are insufficient to protect the Bay in the future	The preferred alternative for the 2007 RNA Amendment that requires (in part) a tug escort for all single hull tank vessels has been in effect since 2007, at which time the OPA phase out date was still about seven years away. This Environmental Assessment was prepared to correct a procedural deficiency that occurred in the Coast Guard's NEPA implementing procedures in 2007. If the Coast Guard determines that additional amendments to the 2007 RNA are necessary in the future to afford additional effective protection for Buzzards Bay, such requirements would be proposed anew, independent of the OPA phase out date.
10. The Draft EA (page 5-1) indicates that the USCG is planning to perform a quantitative study with the MassDEP. To ensure that the USCG has taken a "hard look" at the potential environmental consequences of not requiring escorts and pilots for double hulled barges, it must delay the EA and await the completion of the joint risk study.	The RA was completed in January 2013, prior to finalization of the 2007 RNA amendments environmental documentation. Nevertheless, since this EA was written to document in more detail, the environmental review conducted when the 2007 amendments were being proposed, it cannot draw conclusions based upon information that was developed subsequent to that time. However, the RA findings will be considered in any future change proposed for the Buzzards Bay RNA. Moreover, such future proposed changes would be subject to new NEPA analysis.

11. The draft EA fails to provide any discussion regarding the risks to navigation in Buzzards Bay and the Cape Cod Canal.	Section 3.2 of the EA discusses "Navigation and Vessel Movement" on Buzzards Bay and the Cape Cod Canal" in terms of recommended vessels routes and required securite' calls. These mitigation measures relate to the potential for marine grounding (recommend routes) and marine collision (securite' calls) navigation risks. Risks to navigation are also indentified in the Coast Pilot and on NOAA navigation charts. More recently, known risks to navigation were evaluated in the RA, which the CG will take into consideration in any future rule making decisions.
12. The draft EA fails to acknowledge and consider the complex factors that underlie a company's decision to utilize a single versus a double hulled tank barge.	The Regulatory Evaluation completed when the 2007 RNA Amendments were being drafted for the Final Rule Navigation and Waterways Management Improvements in Buzzards Bay, recognized that there were many factors that were normally considered by a towing company when determining which equipment should be used for any given assignment. However, the focus for purposes of the amendments at that time was solely on whether the added cost of an escort tow vessel would influence the shipping company's decision on which type barge to use.
13. The Draft EA refers to issuing a FONSI and directly implementing the 2007 Final Rule, which suggests that the USCG intends to treat the 2007 Final Rule as effective immediately upon issuance of the FONSI without any intervening rulemaking process and thereby not complying with the Administrative Procedures Act. This is procedurally wrong and substantively significant. A related comment added that the DEA is unclear as to whether the CG intends to complete the NEPA process and treat the 2007 final rule as again effective, in contravention of the First Circuit's ruling; or proceed with a new rulemaking following the APA.	While the U.S. Court of Appeals for the First Circuit remanded the case to the Coast Guard for further proceedings, i.e. correcting the NEPA deficiency, neither the District Court nor the First Circuit vacated the 2007 Final Rule which culminated the rulemaking process for that action. Hence, the "Special Buzzards Bay Regulations" defined in 33 CFR 165.100(d) (5) have remained in effect while the Coast Guard has conducted the environmental analysis. The APA was complied with via the 2007 rulemaking process.
14. The USCG failed to address the full spectrum of available alternatives in the Draft EA and should thoroughly and objectively consider an alternative that combines an escort tug and pilotage requirement for both single and double hull vessels as well as enhanced communications, increased manning and restricted navigation requirements.	As required by the Council on Environmental Quality Regulations at 40 CFR Section 1502.14 "alternatives including the proposed action", the environmental analysis required by NEPA should: "(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been

	eliminated. In the draft EA the CG considered six alternatives. Additionally, Section 2.2 of the DEA specifically discusses one alternative measure that was considered but rejected. While numerous additional alternatives to the RNA amendments could be described, the ones that were selected represented those with substantive differences and that the Coast Guard found to be comparable relative to their potential to improve the safety of navigation and reduce the potential for oil spills on Buzzards Bay and the Cape Cod Canal. Moreover, this Environmental Assessment was written to correct a past NEPA procedural insufficiency that occurred when the existing Regulated Navigation Area (RNA) amendments were implemented in 2007. As a result, though this document is being written in 2012/2013, it must evaluate the alternatives that were considered in 2007 based upon the factual information available to the Coast Guard at that time. Any future action to further amend the Buzzards Bay RNA will carefully consider a potentially new array of alternatives.
15. (a) The Draft EA indicates that the slight increase in vessel traffic due to tug escorts could cause a short-term increase in turbidity and sediments as the result of turbulence, but cites nothing to support this proposition. The Draft EA also cites several general papers to support its contention that propeller wash from boats can adversely impact aquatic plants and egg and larval development in fish and shellfish. However, the cited studies are not specific to barge traffic in Buzzards Bay and do not take into account vessel traffic confined to a navigation channel. A related comment suggested that the draft EA cites the adverse environmental impacts caused by escort tug operations as a key justification for not requiring them for double hull barges. At the same time, the commenter believes the draft EA contradicts itself by stating that the adverse environmental impacts from requiring escort tugs for both single and double hull barges would be substantially the same–and "would be negligible". (b) Another related comment states that: The DEA fails to comply with NEPA because it does not provide a "site-specific appraisal of the environmental effects of its proposed action".	(a) The DEA discussion of propeller wash impacts was intended to demonstrate the potential for generic effects on the biological environment from sources other than oil spills. It is because of the nature of Buzzards Bay waters, including depth and substrate along the routes primarily used by commercial marine transporters, that these effects were described as minor and temporary in most cases. In the end, these minor effects did not significantly influence the selection of the preferred alternative when the RNA amendments were proposed in 2007. (b) Chapter 3 of the DEA describes the affected environment of Buzzards Bay, including biological and "human" (socioeconomic) resources. This description forms the "environmental baseline" against which the impacts of each alternative are compared. These location specific impacts are outlined in Table 2-2 of the EA.

16. The Buzzards Bay Coalition constitutes an interested and affected party, but the Coalition was not notified or invited to participate in the USCG's NEPA process. The failure to so notify or invite the Coalition constitutes a violation of the USCG's own procedural requirements under NEPA	The answer to this comment has two parts. First: The Coast Guard's NEPA Implementing Procedures (COMDTINST 16475.1 D) do specify in Chapter 2 that "for all Coast Guard actions not categorically excluded, all known interested or affected parties shall be notified and invited to participate in the consultation process". Further, that "Any other parties having regulatory involvement or otherwise directly affected will also be notified in writing. All other interested parties may be informally contacted". However, the means by which such notification and/or contact is provided and the pre-decisional point in the process at which such notice should be given is not specified. In the case of the Environmental Assessment (EA) for the 2007 amendments to the Buzzards Bay Regulated Navigation Area, the Coast Guard chose to use a draft EA as the vehicle with which to seek input from interested parties as well as from the general public. As a draft, this document did not foreclose the opportunity for such parties to provide timely, valid facts for consideration by the Coast Guard before making its final decision. In fact, as a known interested or affected party, the Buzzards Bay Coalition was provided direct notification about the draft EA via individual letter with a printed copy of the draft EA. The Coalition's response in an eighteen (18) page letter clearly indicates that a reasonable opportunity for comment was afforded and demonstrates their participation in the Coast Guard's NEPA process. General contact and notice to other unspecified potentially interested parties was provided informally through a Notice of Availability for the draft EA published in the Federal Register and local newspapers. In contrast with the direct letters, these notification methods did not provide an actual copy of the draft EA, but informed where such copies could be obtained. Second: This Environmental Assessment (EA) was intended to correct a procedural deficiency that occurred in the Coast Guard's NEPA implementing procedures when the RNA was last amended in 2007. Consequently, this EA does not address any new proposed regulation or modifications to the RNA on Buzzards Bay since it was last changed in 2007. Since it is not possible to go back and undo what has been in effect for the past five + years, input from interested parties at this point in

	time, including comments on the retrospective DEA will be considered if and when the Coast Guard determines that additional RNA amendments are needed. Such future proposed amendments may be developed after review of the recently completed Risk Assessment for Buzzards Bay and consideration of any other pertinent factual information. If new amendments are proposed, the Coast Guard will analyze impacts and prepare appropriate NEPA documentation, with public input commensurate with the proposal, to demonstrate complete and objective analysis of environmental impacts on Buzzards Bay.
17. The Draft EA fails to identify the number of single hull tank barges that transported oil through Buzzards Bay during 2011 and also fails to identify the total number of single hull tank barges that remain in use and available on the East Coast to transport oil through the Bay and Cape Cod Canal. Current data is necessary to ascertain any potential effect.	Your comment is noted. We recognize that new data has been collected and additional studies have been completed since the 2007 rule was published. Additionally, we recognize that the subsequent data and studies, while informative, have to be balanced against the court's direction to correct the deficiency in the NEPA process for the 2007 RNA, in order to complete the 2007 rulemaking. To do so required that the EA consider, to the greatest extent possible, the world as it was in 2007. Moreover, this Environmental Assessment was written to correct a past NEPA procedural insufficiency that occurred when the existing Regulated Navigation Area (RNA) amendments were implemented in 2007. Therefore, it evaluated the vessel traffic data that was available at that time.
18. (a)The Draft EA's description of Alternative 2 is inaccurate. A related comment: **(2) No Action Alternative**: CG "No-action alternative (the status quo) is incorrect. The baseline against which the other proposed alternatives should be compared includes both the pre-2007 RNA and the MOSPA requirements. (b) Likewise, the Alt 4 discussion regarding increase in vessel traffic due to double hull barge tow requirement is not valid because MOSPA already requires them, thus no increase would occur.	(a) Alternative 2 is not the "No action" (status quo) alternative as described in the DEA. Alternative 2 is essentially the RNA prior to the 2007 amendments, combined with Sections 4 and 6 of MOSPA, for which the First Circuit had vacated an injunction. This regulatory regime was not considered by the Coast Guard to be the status quo when the then existing RNA was proposed to be amended in 2007. However, it was still considered and analyzed in the current DEA as Alternative 2. (b) The DEA was written based upon the federal regulation which had been determined by the Coast Guard to preempt application of all or parts of MOSPRA. Notwithstanding, similar to the consolidated comment # 16 response, the effects from increased vessel traffic were described as minor and temporary in most cases. In the end, these minor effects did not significantly influence the selection of the preferred alternative when the RNA amendments were proposed in 2007.

19. Mandating additional personnel for Buzzards Bay transport would result in unnecessary time delays in transit and additional cost to consumers, especially of home heating oil. A related comment states that Alternative 3a in the draft EA is the correct choice.	Manning standards for tank vessels and tugs are set forth in federal regulation at 46 CFR Part 15. In the 2007 Amendments Final Rule, the Coast Guard included the requirement for a federally licensed pilot in addition to the vessel's master and crew. Under this rule, neither a master of a primary tug nor any member of its crew may serve as pilot on a single hull tank barge while transiting Buzzards Bay. It is intended that the federally licensed pilot be an additional navigation resource to the master and crew of the vessel. This is included in the Alternative 3a description. Additional crew members were not included in the preferred alternative.
20. Escort tugs for double hulled barge transits do not necessarily decrease the risk of an oil spill commensurate with the increased costs, environmental impacts, and safety risks to personnel. VMRS is supported by the industry and provides substantially more protection against the possibility of oil spills. When crewed in accordance with current regulations, an adequate number of crew is carried on the towing vessel to respond to vessel emergencies.	This comment is largely consistent with the Coast Guard's 2007 evaluation of navigation safety for oil carrying tank barges on Buzzards Bay as reflected in preferred alternative 3(a).
21. Alternative 3a should require an escort tug whenever a single-screw tug is the primary towing vessel for an oil barge of any size and either single or double hull construction.	The alternative that required escort for single screw tug was evaluated as the no action alternative. At the time of the 2007 rulemaking, the Coast Guard did not believe it necessary to require tug escorts for double hull tank barges in order to achieve further reduction in the potential for oil spills. Additionally, the Coast Guard considered that, as adopted in this rule in 2007, its three-pronged approach to navigation safety: (1) Mandatory participation in a Vessel Movement Reporting System (VMRS); (2) a federally licensed pilot and (3) a tug escort for single hull tank barges would be expected to reduce the likelihood of an incident that might result in a collision, an allision, or grounding and the resultant discharge or release of oil or hazardous material into the navigable waters.
22. A required navigation route is necessary for meaningful environmental protection in Buzzards Bay. A related comment: Alt 2 includes "mandatory vessel route" but the version of MOSPA prior to 2007 RNA Amendments did not then and does not now include this as a requirement.	The National Oceanic and Atmospheric Administration (NOAA), at the request of the Coast Guard, overlaid recommended vessel routes on navigational charts for Rhode Island Sound, Narragansett Bay, and Buzzards Bay. These recommended

	vessel routes are currently included on all new editions of charts 13205, 13218, 13221, and 13230. To allow maximum operating flexibility to meet differing conditions and situations, the Coast Guard did not make the recommended vessel routes depicted on these charts mandatory. The Coast Guard wishes to avoid creating any situation in which a mariner may feel constrained to follow a set route when conditions may warrant an alternative approach. With regard to the related comment: Alternative 2 was not intended to contain only MOSPA requirements, but include those actions from Sections 4 and 6 of the Act as well as other actions that would distinguish this alternative from the others being considered.
23. The presence of escort tugs may adversely impact the level of safety of double hull tank barge transits in Buzzards Bay due to the increased traffic density and potential failure of non-commercial traffic to recognize the under way relationship between a tug/tank barge unit and an attending escort vessel.	Voluntary use of escort tugs in Buzzards Bay and the Cape Cod Canal has long been practiced with no adverse impacts on the ability of other vessels to navigate safely. The amount of good water in lower Buzzards Bay is considered sufficient for vessels to navigate safely, even with the addition of escort tugs. Additionally, the U.S. Army Corps of Engineers' authority for (and control of) the Cape Cod Canal encompasses in their entirety the constrained waterways of Cleveland Ledge Channel, Hog Island Channel, and the canal itself (the canal land cut). On those few occasions (primarily in winter when home heating oil deliveries increase) where several tugs with tows and escort tug may converge, or approach converging, near one of these constrained waterways, the Corps would direct vessel traffic in a manner intended to minimize risk of collision.
24. (a) The draft EA does not do an adequate job describing the potential impacts of oil spills on wildlife in Buzzards Bay. (MA DF&W) Another comment pointed out the unique environment that makes up BBay (e.g. estuarine shoreline, diverse wildlife including piping plover and half the remaining global population of roseate tern (presumably not found in the DEA.)	(a) Section 3 of the DEA describes the affected environment of Buzzards Bay and Cape Cod Canal. Specifically, the protected species discussion under Section 3.3.7 notes that "Approximately 60 percent of the northeast population of roseate terns is located in just two colonies found in Buzzards Bay". Then Section 4.2 of the DEA discusses the environmental consequences to biological resources specifically related to each alternative and the natural environment in general.
(b) A related comment: States that the geography of Buzzards Bay makes it more vulnerable to oil spills (because oil cannot be contained away from shore as can be done in more open waters).	(b) Control of an oil release to a waterway is affected by a variety of variables. Proximity to shore can decrease the amount of time available for the arrival of response equipment. However, even in this scenario the movement of oil towards sensitive

	environmental areas on shore would be affected either negatively or positively depending on wind, sea and tide conditions. Similarly, recovery of open water oil spills is more likely to be hampered by elevated sea conditions than would be expected on a more protected waterway. In the end, an oil spill on any waterway is an event to be avoided. The 2007 RNA amendments were intended to decrease the potential for such release as noted in the response to related comments above.
(c) A connected comment urged thorough analysis since the CG preferred alternative would preempt MOSPA's more environmentally protective provisions, thereby decreasing the level of protection against oil spills in Buzzards Bay	(c) Based upon the variety of scenarios under which an oil laden tank vessel (barge) could be compromised with resultant release of cargo, the Coast Guard proposed in 2007 that the most reliable way to minimize the potential for such release on Buzzards Bay was to have consistent use of adequately designed double hull barges, with additional safety elements of notification under the VMRS and securite radio calls at 21 specific locations. Further, that while escort tugs would be required for single hull barge tows, creating an economic incentive to accelerate the phase-out of single hull barges sooner than the January 2015 OPA 90 deadline would be of significant benefit to the environment of Buzzards Bay." See also the response to comment 5 (c) above. Requiring an escort tug also for double hull barges would eliminate any possibility of incentive. The Coast Guard's position being that under any incident scenario, the environment would be better protected if a double hull barge was in use instead of a single hull vessel.
25. The USCG's complete authority over rules regarding vessel safety and operations will provide clear, uniform national standards. Without uniform federal rules, vessels engaged in interstate commerce face ambiguity that makes it difficult for companies and mariners to comply with environmental regulations and puts hard-working Americans at risk of losing their jobs and becoming implicated in civil or criminal enforcement actions.	The Coast Guard's exclusive authority to regulate safety, operations, and navigation for vessels engaged in interstate commerce is designed to avoid a patchwork quilt of regulations. Additionally, as the federal agency responsible for national maritime safety, the Coast Guard must balance protection of the marine environment with the facilitation of national interstate and international maritime commerce.
26. A 2005 report indicates that a number of problems associated with double hull vessels can decrease their overall safety, including: accelerated structural corrosion in water ballast and in cargo tanks; fatigue; and, demanding and difficult maintenance regimes which, if not observed, may lead to structural deterioration. In addition, double hull vessels are more difficult to navigate because they weigh more and draft deeper than single	The Coast Guard is aware that there may be maintenance, structural and possibly maneuvering issues associated with double hull vessels that are not relevant to single hulls; however the safety and environmental protection provided by double hull vessels and barges far outweighs any minor negative aspects they might present. With regards to draft; double hulls do not

hulls.	draft any deeper than single hulls. Additionally, Applicable barges shall follow the inspection requirements in 46 CFR Subchapter D or 46 CFR Subchapter I. Barge Inspection Types: Certification of Inspection (COI)/Annual Examination/Periodic Drydock Inspection Periodic/Underwater Survey in Lieu of Drydock (UNWILD) Internal Structure Exam (ISE) Cargo Tank Internal Exam (CTIE).
27. (a) The Coast Guard does not have sufficient information to conduct the analysis required by NEPA and mandated by the First Circuit. It has no basis to compare the environmental benefits, and the Draft EA states as much in Chapter 5.	(a)The amendments to the Regulated Navigation Area for Buzzards Bay were based on a regulatory evaluation completed in May 2007 and other pertinent studies specific to Buzzards Bay or to double hull barge technology (e.g. by the National Research Council, Ports and Waterways Safety Assessment {PAWSA} and other related data sources). The purpose of Chapter 5 of the Environmental Assessment is to discuss "Cumulative Impacts" that may be related to the RNA amendments proposed in 2007. This section of the EA notes that (other than the incremental increase in navigation safety afforded by the original RNA and subsequent layered changes), there were no other known actions taken by any federal agency that would enhance or detract from the requirements implemented by those amendments.
(b) Related Comment: First Circuit Court "anticipated that the USCG would perform a detailed, site specific study of the risk-reduction benefits of requiring escorts for double hulled tank barges transiting BuzBy. ("Buzzards bay Coalition, 644 F.3d at 38)	(b) The Coast Guard rigorously explored and objectively evaluated six alternatives with the Environmental Assessment pertaining to the regulatory action the Coast Guard took in 2007. All of the alternatives analyzed contained measures aimed at the reduction of risk for oil spills on Buzzards Bay. Some of the alternatives included the requirement for an escort tug with both single and double hull barges. In 2007, the Coast Guard amended the preexisting RNA with the alternative which it believed would most reliably further reduce the potential for oil spills while considering impacts to both the environment and commercial marine navigation. The 2007 RNA amendments continue to be in effect today. As is the Coast Guard's routine practice, measures for the safety of navigation (and thereby protection of the environment) are continuously evaluated for the need of improvement. In order to

	better inform future regulatory decisions affecting Buzzards Bay, the Coast Guard and Massachusetts Department of Environmental Protection jointly sponsored a Risk Assessment to study and evaluate "measures that may (further) reduce the level of potential risk of an oil spill in Buzzards Bay and the Cape Cod Canal." This Risk Assessment will be included in the Coast Guard's consideration of future regulatory amendments for the Buzzards Bay RNA. Such future amendments would also be subject to new environmental (NEPA) review.
28. Draft EA fails to account for MOSPA escort requirement for double hull barges would remain in effect regardless of CG regulatory choice.	In actuality, since the 2007 RNA amendments were implemented, and after a number of interim court decisions, both the Commonwealth's MOSPRA regulation and the 2007 federal amendments to the RNA have been in effect. The Coast Guard and the Commonwealth are currently working together to examine the current regulatory regime and evaluate the need for changes that could improve navigation safety through operational and structural measures that would enhance protection of the Buzzards Bay environment.
29. DEA refers to oil or hazardous material but does not describe the hazardous material, type of vessels that carry it, or the quantity shipped, through BuzBy.	In addition to petroleum products including, home heating oil, (bunker 6 etc.) other hazardous materials, (e.g. alcohols, oxides & halogen salts) are transported through Buzzards Bay and the Cape Cod Canal. For further information on transporting of hazardous material see 33 CFR Part 172.101.
30. General manager of the Providence Steamboat Company offered to MADEP that the presence of a tugboat escort for double hull barges reduces the risk of casualty and "many of the industry Captains…viewed escorts…as a benefit".	While there are a number of situations where an escort tug could be of assistance, there are also instances where they would add little benefit to protection from oil spills. For example, if the primary tug is in full control of the towed barge, but runs the barge unwittingly hard aground or allides with an unknown submerged object, the use of a double hull barge would be the more immediately effective prevention element in such situations since there would not have been an apparent need for assistance from the escort tug until it was too late. Nevertheless, as noted in response to Comment # 29 above, the Coast Guard and Commonwealth of Massachusetts are further evaluating the array of safety measures that could be applied to protect Buzzards Bay from oil release incidents. Also note that a requirement for extra tug vessel deployment would be expected to be viewed favorably by interests like the

	Providence Steamboat Company that are in the business of towing.
31. (a) Any short term (two years at best before OPA 90 deadline) financial incentive to accelerate single hull phase-out is not accurately weighed in comparison to "recognized benefits" of requiring pilots and tug escorts for double hull barges for many years after December 2014. (b) Also, since MOSPA already requires the double hulled escort (ed. for both single and double hull barges), there is no real financial incentive to hasten replacement of single hulled vessels.	(a) At the time the 2007 RNA amendments were implemented there were approximately seven years until the OPA 90 deadline was reached for elimination of single hull barges. Based on experience, it is reasonable to conclude that more marine incidents involving single hull barges would result in release of cargo, and greater amounts of cargo, than if their double hull counterparts were involved. Therefore, the Coast Guard concluded in 2007 that the greatest immediate benefit to the Buzzards Bay environment may be achieved through accelerated reduction in the use of single hull barges. As noted in response to Comment # 28 and 30 above, the Coast Guard and Commonwealth of Massachusetts are currently engaged in further evaluation of the array of safety measures that may be effective in affording greater protection to Buzzards Bay from oil release incidents in the future. (b) At the time the 2007 RNA amendments were being written, the Coast Guard believed that the requirements of the Commonwealth would be preempted by federal law. Under that scenario, the financial incentive would have been more tangible.
32. CG "recency" requirements for a crew member to act as a pilot for single and double hull barges have proven to be completely deficient as a risk reduction measure on BuzBy.	The Commonwealth believes that the Coast Guard's "recency requirements" for persons "acting as pilots" are completely deficient as a risk reduction mechanism. However, both the State and Federal pilot "recency" requirements indicate that renewal of the respective pilot's license necessitates the individual having made at least one trip on the involved waters within the previous five years. Therefore, the Coast Guard's rule on "recency" is no less effective than the Commonwealth's. In view of these similarities, similar reduction in the risk of marine incidents resulting in release of hazardous cargo would be expected."

33. Coast Guard's own NEPA Instruction pointed to an EIS for the proposed action: Actions that normally require an EIS include those with significant controversy because of effects on the human environment; EA should not normally exceed 15 pages. CEQ: lengthy EA indicates that an EIS is needed.	These are the same criteria in the Coast Guard Instruction that would demonstrate the need to prepare an environmental assessment (EA) instead of a Categorical Exclusion determination. The EA is a NEPA tool which is used to determine if there is likely to be significant effects on the environment or not. If not, an EIS is not required. The page number data noted in this comment refers to mere generalizations rather than hard and fast rules. Complexity and significance of content, not the number of words, are more pertinent to the viability of an Environmental Assessment.
34. Five recorded incident(s) involving double hull barges are presented as evidence that double hull barges can be breached. (Includes one grounding, one allision with a submerged structure and three vessel to vessel collisions.)	Your comment is noted. We recognize that new data has been collected and additional studies have been completed since the 2007 rule was published. Additionally, we recognize that the subsequent data and studies, while informative, have to be balanced against the court's direction to correct the deficiency in the NEPA process for the 2007 RNA, in order to complete the 2007 rulemaking. To do so required that the EA consider, to the greatest extent possible, the world as it was in 2007. Additional information about the circumstances involved in each of these cases would be needed in order to demonstrate whether or not an escort tug could have been effective in preventing these marine casualties. In addition, the EA makes no actual or implied claim that a double hull barge could not be breached under any possible extreme circumstances even if there was an escort tug present. This is why the selected alternative also incorporates other measures to improve navigation safety. Notwithstanding, these cases occurred after the 2007 amendments were promulgated and therefore could not be considered in analysis conducted for an action taken prior to that time. However, such case history would be included for consideration during the joint review of the Buzzards Bay Regulated Navigation Area conducted by the Coast Guard in conjunction with the Commonwealth of MA.
35. CG NEPA Instruction says all needed data issues have to be resolved (ed. This refers to the "TBD" answer(s) to the initial Environmental Analysis checklist questions.)	There were no unresolved issues included in the draft Environmental Assessment which followed the Environmental Analysis Checklist.

36. Double hull tanker designs do not address human error "which is responsible for the majority of oil spills worldwide".	Your comment is noted. We recognize that new data has been collected and additional studies have been completed since the 2007 rule was published. Additionally, we recognize that the subsequent data and studies, while informative, have to be balanced against the court's direction to correct the deficiency in the NEPA process for the 2007 RNA, in order to complete the 2007 rulemaking. To do so required that the EA consider, to the greatest extent possible, the world as it was in 2007. Moreover, human error is one of the known causes of marine incidents. Whether or not an oil release occurs from such incidents is dependent on other factors not all related to human error, such as the resilience of the towed tank vessel. As noted in response to comment # 7(d) above, an escort tug is not likely to be 100 % effective in preventing all types of marine incidents. Though related, the occurrence of a marine incident and the occurrence of a release of product after a marine incident have separate cause pathways. The double hull tank barge is the most reliable constant as a passive safety feature that does not require unreliable human action to be an effective tool to prevent oil spills.

*Comment numbers refer to comments in the Public Comments on Buzzards Bay DEA table.

duty road known locally as Westlake Boulevard, section 26, T1N/R19W; then

(27) Proceed northeasterly on Westlake Boulevard approximately 0.4 mile to the road's second intersection with the 900-foot elevation line, section 26, T1N/R19W; then

(28) Proceed easterly along the 900-foot elevation line, crossing the Los Angeles County-Ventura County boundary, to the elevation line's intersection with the boundary of the Las Virgenes Land Grant (concurrent at this point with the northern boundary of section 31, T1N/R18W); then

(29) Proceed northeasterly along the Las Virgenes Land Grant boundary approximately 0.3 mile, crossing Triunfo Canyon, to the boundary's intersection with the 1,000-foot elevation line; then

(30) Proceed westerly and then east-northeasterly along the 1,000-foot elevation line to the line's intersection with the Las Virgenes Land Grant boundary, and then continue northeasterly along the Las Virgenes Land Grant boundary approximately 0.2 mile to the boundary's intersection with U.S. Highway 101 (Ventura Freeway); then

(31) Proceed easterly on U.S. Highway 101 (Ventura Freeway) approximately 5.7 miles, crossing onto the Calabasas map, to the highway's intersection with the northern boundary of section 30, T1N/R17, near Brents Junction; then

(32) Proceed west along the northern boundary of section 30, T1N/R17W approximately 0.5 mile to its intersection with the 1,000-foot elevation line; then

(33) Proceed northerly, southerly, and easterly along the meandering 1,000-foot elevation line, encompassing portions of Las Virgenes, East Las Virgenes, and Gates Canyons, to the elevation line's intersection with the western boundary of section 21, T1N/R17W; then

(34) Proceed north along the western boundaries of sections 21 and 16, T1N/R17W, to the section line's intersection with the Los Angeles County-Ventura County boundary line; then

(35) Proceed east along the Los Angeles County-Ventura County boundary line approximately 0.45 mile, and then proceed north along the county boundary line approximately 0.1 mile to the county boundary's intersection with Long Valley Road; then

(36) Proceed east-southeasterly on Long Valley Road approximately 1.7 miles to the road's intersection with the Los Angeles city boundary (approximately 0.1 mile north of U.S. Highway 101 (Ventura Freeway)), section 23, T1N/R17W; then

(37) Proceed south along the Los Angeles city boundary approximately 0.2 mile, then east-northeasterly approximately 0.2 mile, and then southeasterly approximately 0.9 mile to the city boundary's intersection with the northern boundary of section 26, T1N/R17W; then

(38) Proceed east-northeasterly along the Los Angeles city boundary approximately 0.3 mile, and then continue easterly along the city boundary approximately 0.5 mile, crossing onto the Canoga Park map, and returning to the beginning point.

Signed: June 24, 2013.

John J. Manfreda,

Administrator.

[FR Doc. 2013–15876 Filed 7–5–13; 8:45 am]

BILLING CODE 4810–31–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket No. USCG–2011–0322]

RIN 1625–AA11

Regulated Navigation Area; Special Buzzards Bay Vessel Regulation, Buzzards Bay, MA

AGENCY: Coast Guard, DHS.

ACTION: Advance notice of proposed rulemaking.

SUMMARY: The Coast Guard is seeking comments and feedback on how best to enhance environmental protections and navigation safety outlined in the Special Buzzards Bay regulations. Specifically, the Coast Guard is seeking comments related to potential modifications of the current mandatory pilotage, escort tug, and Vessel Movement Reporting System (VMRS) Buzzards Bay requirements. The Coast Guard intends to use this input to propose new requirements on barges carrying 5,000 or more barrels of oil or other hazardous material.

DATES: Comments and related material must be received by the Coast Guard on or before October 7, 2013.

Requests for public meetings must be received by the Coast Guard on or before July 29, 2013.

ADDRESSES: Documents mentioned in this preamble are part of Docket Number USCG–2011–0322. To view documents mentioned in this preamble as being available in the docket, go to *http://www.regulations.gov,* type the docket number in the ''SEARCH'' box and click ''SEARCH.'' Click on ''Open Docket Folder'' on the line associated with this rulemaking. You may also visit the Docket Management Facility in Room W12–140 on the ground floor of the Department of Transportation West Building, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

You may submit comments, identified by docket number, using any one of the following methods:

(1) *Federal eRulemaking Portal: http://www.regulations.gov.*

(2) *Fax:* (202) 493–2251.

(3) *Mail or Delivery:* Docket Management Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590–0001. Deliveries accepted between 9 a.m. and 5 p.m., Monday through Friday, except federal holidays. The telephone number is 202–366–9329. See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section below for further instructions on submitting comments. To avoid duplication, please use only one of these three methods.

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email Mr. John J. Mauro, Waterways Management Division, U.S. Coast Guard First District, (617) 223–8355, email *John.J.Mauro@uscg.mil.* If you have questions on viewing or submitting material to the docket, call Barbara Hairston, Program Manager, Docket Operations, telephone (202) 366–9826.

SUPPLEMENTARY INFORMATION:

Table of Acronyms

AIS Automatic Identification System
ANPRM Advanced Notice of Proposed Rulemaking
AWO American Waterways Operators
COTP Captain of the Port
DHS Department of Homeland Security
FR Federal Register
MOSPA Massachusetts Oil Spill Prevention and Response Act
RCP Responsible Carrier Program
RNA Regulated Navigation Area
RA Technical Risk Assessment
VMRS Vessel Movement Reporting System

A. Executive Summary

Having weighed sometimes competing, but fundamentally important goals of environmental protection, concerns of the local community, judicious use of public funds, restrained exercise of governmental regulation, facilitation of maritime commerce, and the standardization of safety regulations to avoid the fragmentation of regulatory regimes as a vessel transits across State

or regional boundaries, we now seek to develop the next phase of comprehensive, balanced, and effective risk mitigation measures for Buzzards Bay. In particular, we want to update the following areas:

- *Federal Pilotage.* The Coast Guard believes laden tank barges transiting Buzzards Bay and carrying 5,000 or more barrels of oil or other hazardous material should be under the direction and control of an independent pilot regardless of whether those tank barges are single or double hull.
- *Reporting and participation requirements of the VMRS Buzzards Bay.* The Coast Guard believes amending the reporting and participation requirements of the VMRS Buzzards Bay to focus on that population of marine traffic that is laden with 5,000 or more barrels of oil or hazardous material, rather than all marine traffic, will enhance navigation safety and marine environmental protection. The intent is that the VMRS will still be manned on a 24 × 7 basis.
- *Escort Tugs.* The Coast Guard believes that under certain conditions (e.g. adverse weather, equipment limitations), double hull tank barges laden with 5,000 or more barrels of oil or hazardous material may require a tug escort. Single-hull tank barges will continue to require tug escorts under all circumstances. The Coast Guard notes that single hull tank barges are to be phased out January 1, 2015.

B. Public Participation and Request for Comments

We encourage you to participate in this rulemaking by submitting comments and related materials. All comments received will be posted without change to *http://www.regulations.gov* and will include any personal information you have provided.

1. Submitting Comments

If you submit a comment, please include the docket number for this rulemaking, indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation. You may submit your comments and material online at *http://www.regulations.gov,* or by fax, mail, or hand delivery, but please use only one of these means. If you submit a comment online, it will be considered received by the Coast Guard when you successfully transmit the comment. If you fax, hand deliver, or mail your comment, it will be considered as having been received by the Coast Guard when it is received at the Docket Management Facility. We recommend that you include your name and a mailing address, an email address, or a telephone number in the body of your document so that we can contact you if we have questions regarding your submission.

To submit your comment online, go to *http://www.regulations.gov,* type the docket number in the ''SEARCH'' box and click ''SEARCH.'' Click on ''Submit a Comment'' on the line associated with this rulemaking.

If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit comments by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period and may change the rule based on your comments.

2. Viewing Comments and Documents

To view comments, as well as documents mentioned in this preamble as being available in the docket, go to *http://www.regulations.gov,* type the docket number in the ''SEARCH'' box and click ''SEARCH.'' Click on Open Docket Folder on the line associated with this rulemaking. You may also visit the Docket Management Facility in Room W12–140 on the ground floor of the Department of Transportation West Building, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

3. Privacy Act

Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act notice regarding our public dockets in the January 17, 2008, issue of the **Federal Register** (73 FR 3316).

4. Public Meeting

We do not now plan to hold a public meeting. But you may submit a request for one on or before July 29, 2013, using one of the methods specified under **ADDRESSES**. Please explain why you believe a public meeting would be beneficial. If we determine that one would aid this rulemaking, we will hold one at a time and place announced by a later notice in the **Federal Register**.

C. Regulatory History and Information

The Oil Pollution Act of 1990 (OPA 90) resulted in sweeping changes to the way oil and chemical transportation is conducted in the United States and throughout the world. This wide-ranging legislation required changes in virtually every aspect of the oil transportation industry. It involved new construction requirements, operational changes, response planning, licensing and manning mandates, and increased liability limits.

One significant pollution prevention standard in OPA 90 was the requirement that new tank barges and vessels be of double- hull construction. This provision also required that existing single-hull tank vessels (including barges) be retrofitted with a double hull or be phased out of operation entirely by January 1, 2015.

In 1998, in response to the January 1996 grounding of a single-hull tank barge off Moonstone Beach in Rhode Island that resulted in the release of approximately 880,000 gallons of #2 fuel oil, the Coast Guard established an RNA for the navigable waters of the First Coast Guard District. The RNA required any single-hull tank barge carrying petroleum as bulk cargo to be accompanied by an escort or assist tug unless towed by a tug equipped with twin-screws and two engines independent of each other and capable of maintaining control of the tank barge in the event of a loss of one of the engines. It also stipulated that the escort or assist tug must be of sufficient capability to push or tow the tank barge promptly away from danger, and noted that the use of double-hull barges would remove the need for twin-screw, twin-engine tugs.

In response to the April 2003 grounding of the oil-laden barge B–120, which spilled approximately 98,000 gallons of No. 6 oil into Buzzards Bay, the Coast Guard undertook several studies and assessments, facilitated public discussion and ultimately implemented additional measures to improve navigation safety and protect the marine environment. Those measures included aids-to-navigation improvements and adoption of a voluntary recommended vessel route (''green lanes'') in 2004, followed in 2007 by an updated RNA that contained requirements for escort tugs, federally licensed pilots, and creation of a VMRS; these enhancements were accompanied by widely expanded use of AIS. These changes were intended to reduce the navigation and environmental risks associated with tank barges laden with

5,000 or more barrels of petroleum product or other hazardous material.

Since 2007, the American Waterways Operators (AWO) Responsible Carrier Program (RCP) and the emerging Coast Guard Towing Vessel Inspection Program have also served to reduce the likelihood of a material or human factor-related incident through vessel design and equipment standards, maintenance programs, staffing and certification programs, and compliance programs. For more information about the Coast Guard Towing Vessel Inspection Program, see the notice of proposed rulemaking published at 76 FR 49976. For more information about the AWO RCP, please see their Web site: *http://www.americanwaterways.com/commitment_safety/index.html.*

D. Basis and Purpose

Under the Ports and Waterways Safety Act, the Coast Guard has the authority to establish RNAs in defined water areas that are hazardous or in which hazardous conditions are determined to exist. See 33 U.S.C. 1231 and Department of Homeland Security Delegation No. 0170.1.

In 2012, the Coast Guard and Massachusetts Department of Environmental Protection (Mass DEP) contracted with the Homeland Security Systems Engineering Development Institute (HS–SEDI) to provide a technical risk assessment (RA) and evaluation of measures to further reduce the level of potential risk of an oil spill in Buzzards Bay and the Cape Cod Canal (The RA will be provided in the docket).

The RA noted that double-hull tank barge requirements, which become fully effective in January 2015, have increasingly resulted in a significant reduction in the probability of an oil spill after a marine incident that culminated in a collision, allision, or grounding. The double hull requirement is noted as one of the primary contributors to risk reduction in Buzzards Bay.

The purpose of this proposed rulemaking is to provide for safety on the navigable waters in the regulated area.

E. Discussion of the Proposed Rule

The Coast Guard plans to use the results of this RA to evaluate the current level of federal regulation for Buzzards Bay and the Cape Cod Canal, and to determine whether changes are necessary to the VMRS, federal pilots, and/or tug escort system requirements in order to enhance safety in the marine environment and further reduce the potential for oil spills.

VMRS: We believe that the current regulations regarding the VMRS need revision, in that the majority of vessels currently monitored do not pose significant threats of pollution incidents. As currently written, the regulations direct watch stander focus from the higher risk population of oil and hazardous cargo laden tank barges to the much broader population of nearly ALL vessels transiting in Buzzards Bay. In addition, in a comparative ranking of measures that would mitigate risk of an oil spill, the RA ranked the VMRS as one of the less effective options for preventing spills in Buzzards Bay. Therefore, we believe that the public would be best served if the VMRS were to focus specifically on the highest risk vessels that transit Buzzards Bay, (oil laden tank barges carrying 5,000 or more barrels of petroleum or other hazardous cargo) rather than ALL vessels.

Certain classes of vessels that frequent Buzzards Bay and are currently subject to the VMRS regulations, such as commercial fishing vessels and ferries, usually have a maximum capacity of 250 barrels of petroleum (primarily for fuel). This is well below the 5,000-barrel threshold considered to be a significant threat to the environment as defined in the 2007 regulations that implemented several navigation safety measures in Buzzards Bay and established the VMRS. (See 72 FR 50052.)

More than 20,000 commercial cargo vessels, tankers, tugs, barges, passenger vessels, and commercial fishing vessels pass through Buzzards Bay each year, along with thousands of smaller recreational boats. Of those, roughly 600 are tank barges laden with 5,000 or more barrels of petroleum or other hazardous material. When viewed in combination with the increased measures already implemented along with those that we propose to put in place (including mandatory pilotage and condition-based tug escorts), the need for this additional control for tank barges laden with *LESS* than 5,000 barrels of petroleum or other hazardous material is no longer necessary and counter-productive as it diffuses watch stander attention from the higher risk target population.

Changing certain reporting and participation requirements of the Buzzards Bay VMRS to more closely focus monitoring activity on tank barges laden with 5,000 or more barrels of petroleum or other hazardous material would reduce reporting and participation on certain other classes of vessels, and permit marine controllers to focus more closely on the intended vessel population—tank barges laden with 5,000 or more barrels of petroleum product or other hazardous material—thereby reducing costs and improving navigation safety in Buzzards Bay.

What changes to the VMRS Buzzards Bay reporting and participation requirements are being considered by the Coast Guard?

Only tank barges laden with 5,000 or more barrels of petroleum or other hazardous material (both single hull and double hull) would be required to submit intentions and position reports, and would be actively monitored as they transited through Buzzards Bay by the VMRS control center at the Cape Cod Canal. All other classes of vessels (such as ferries and commercial fishing vessels) that currently participate in the VMRS in either an ''active'' or ''passive'' capacity (per the VMRS User Manual) would be exempt from VMRS requirements and would not be actively monitored by the VMRS control center.

What would not change from the current VMRS Buzzards Bay reporting and participation requirements?

1. All vessels subject to the Bridge-To-Bridge Radiotelephone Act (i.e., primarily commercial vessels, including ferries and commercial fishing vessels, but not including recreational vessels) would still be required to monitor the VMRS radio frequency (channel 13 VHF–FM) at all times while operating within the VMRS area and respond promptly when hailed. (See Pub. L. 92–63; 85 Stat. 164; 33 U.S.C. 1201–1208; 33 CFR 26; 47 CFR 80.1001–80.1023; 46 CFR 7).

2. All vessels (including recreational vessels) would still be required to observe the Inland Rules of the Road (See Pub. L. 96–591; 94 Stat. 3415; 33 U.S.C. 2001–2038; 33 CFR 84–90).

3. All current reporting and participation requirements for tank barges laden with 5,000 or more barrels of petroleum or other hazardous material will continue to be in effect.

4. VMRS Buzzards Bay Control will continue to be staffed and operated by U.S. Army Corps of Engineers, Cape Cod Canal.

Federal Pilots: The existing regulation states that each single hull tank barge transiting Buzzards Bay carrying 5,000 or more barrels of oil or other hazardous material must be under the direction and control of a pilot, who is not a member of the crew, operating under a valid, appropriately endorsed, Federal first class pilots license issued by the Coast Guard. Pilots are required to embark, direct, and control from the primary tug during transits of Buzzards Bay. The new regulation would extend this requirement to double hulls as well

so that all oil or hazardous material-laden tank barges carrying 5,000 or more barrels of petroleum or other hazardous material would require pilots under all circumstances. The RA acknowledges that the independent pilotage requirement proposed provides additional decision support and experience on the tug when transiting Buzzards Bay, and significantly reduces the probability of a human factor-induced incident.

Escort Tugs: The Coast Guard is considering establishing certain thresholds, the exceedance of which would trigger the requirement for an escort tug for double-hull tank barges laden with 5,000 or more barrels of oil or hazardous material. These thresholds could be expressed in terms of meteorological conditions such as wind speed, wave height or visibility, or any other factors deemed appropriate, such as equipment limitations or defects. Specifically, the Coast Guard seeks the input of operators, pilots, industry associations, regulators, members of the Area Committee, and concerned citizens on the potential threshold conditions which would trigger the requirement of an escort tug for double-hull tank barges laden with 5,000 or more barrels of oil or hazardous material.

Once these threshold conditions are fixed, industry would have the flexibility to determine if the need to transit during these high-risk periods is offset by the additional cost of the escort, or if a delay in transit awaiting more favorable conditions is a better option.

In a comparative ranking of measures that would mitigate risk of an oil spill, the RA quotes a National Academy of Science study indicating that double hulls result in a 75 to 83 percent reduction in the probability of a spill, should a grounding, collision or allision occur. Therefore, escort tugs would continue to accompany all single-hulled tank barges laden with 5,000 or more barrels of petroleum or other hazardous material through Buzzards Bay until single-hulled tank barges are phased out January 1, 2015.

F. Information Requested

This advance notice of proposed rulemaking invites public comment on the merits, advantages, and disadvantages of changing certain vessel reporting and participation requirements of the Buzzards Bay VMRS; Federal Pilots, not a member of the crew, on board tugs towing both single- and double-hulled tank barges; and Escort Tugs for double-hull tank barges during adverse conditions.

G. Preliminary Regulatory Analysis

This document is issued under authority of 5 U.S.C. 552(a) and 33 CFR 1.05–30.

Federalism

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. The U.S. Supreme Court, in the cases of *United States* v. *Locke,* 529 U.S. 89 (2000) and *Ray* v. *Atlantic Richfield Co.,* 435 U.S. 151 (1978) has ruled that certain categories of regulation issued pursuant to the Ports and Waterways Safety Act of 1972, as amended, are reserved exclusively to the Coast Guard, and that State regulation in these areas is preempted. In general, only the federal government may regulate the design, construction, alteration, repair, maintenance, operation, equipping, personnel qualification, and manning of tank vessels. Similarly, where the Coast Guard enacts regulations that control vessel traffic or are otherwise intended to protect navigation and the marine environment, or affirmatively determines that such regulation is unnecessary or inappropriate, a State may not enact rules that conflict with the Coast Guard's determination in that area, including situations in which the State rules are identical to the federal rules.

As noted previously in our 2007 rulemaking (See 72 FR 50052), the Coast Guard believes that State law is preempted on the subjects discussed in this ANPRM, specifically with regard to the subjects of vessel routing, manning, and tug escort requirements in Buzzards Bay.

Nevertheless, the Coast Guard recognizes the key role State and local governments may have in making regulatory determinations. Sections 4 and 6 of Executive Order 13132 require that for any rules with preemptive effect, the Coast Guard shall provide elected officials of affected State and local governments and their representative national organizations the notice and opportunity for appropriate participation in any rulemaking proceedings, and to consult with such officials early in the rulemaking process.

Therefore, we invite affected State and local governments and their representative national organizations to indicate their desire for participation and consultation in this rulemaking process by submitting comments to this notice. In accordance with Executive Order 13132, the Coast Guard will provide a federalism impact statement to document (1) the extent of the Coast Guard's consultation with State and local officials that submit comments to this advanced notice of proposed rulemaking, (2) a summary of the nature of any concerns raised by State or local governments and the Coast Guard's position thereon, and (3) the extent to which the concerns of State and local officials have been met. We will also report to the Office of Management and Budget any written communications with the States.

Dated: May 30, 2013.

D.B. Abel,

Rear Admiral, U.S. Coast Guard, Commander, First Coast Guard District.

[FR Doc. 2013–16252 Filed 7–5–13; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R08–OAR–2012–0026, FRL–9830–9]

Approval, Disapproval and Promulgation of Implementation Plans; State of Wyoming; Regional Haze State Implementation Plan; Federal Implementation Plan for Regional Haze; Notice of Public Hearings

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of public hearings; extension of comment period.

SUMMARY: EPA has scheduled additional public hearings for our proposed action on Wyoming's State Implementation Plan (SIP) addressing regional haze under. We are making this change in response to letters submitted by the Governor of Wyoming on June 13, 2013, the Wyoming Congressional Delegation on June 14, 2013, and the Wyoming Department of Environmental Quality on June 14, 2013. The comment period for this action was scheduled to close on August 9, 2013. EPA is extending the comment period to August 26, 2013 to allow for a full 30 days for the submission of additional comments following the public hearings.

DATES: Public hearings for this proposal are scheduled to be held on July 17, 2013 at the Laramie County Library, Cottonwood Room, 2200 Pioneer Avenue, Cheyenne, Wyoming 82001 and on July 26, 2013 at the Oil & Gas Conservation Commission, Meeting Room 129, 2211 King Boulevard,

Buzzards Bay Conditional Escort Tug Workgroup Meeting

Army Corp of Engineers, Cape Cod Canal Control Headquarters
Academy Drive, Buzzards Bay, MA
August 14, 2013 1:00 -3:00 p.m.

Meeting Summary

Materials:

- Meeting agenda
- Advanced Notice of Proposed Rulemaking: Department of Homeland Security, U.S. Coast Guard, 33 CFR Part 165 [Docket No. USCG-2011-0322] Regulated Navigation Area; Special Buzzards Bay Vessel Regulation, Buzzards Bay, MA.

Welcome, Meeting Purpose and Introductions

Edward LeBlanc, United States Coast Guard (USCG) Sector Southeastern New England (SENE), welcomed participants and introduced the meeting purpose. He explained that the USCG has issued an Advanced Notice of Proposed Rulemaking (ANPRM) that includes potential threshold conditions for tug escort requirement for double hull barges laden with 5000 or more barrels of oil or other hazardous materials transiting Buzzards Bay. He explained that the USCG is seeking comment from stakeholders regarding these potential threshold conditions, to provide input to the USCG in its rule making. Mr. LeBlanc explained that a summary of this meeting will be included in the Docket for this Proposed Rulemaking, as will all comments submitted by individuals or groups. This input will inform the USCG as it considers next steps regarding the proposed rulemaking.

Richard Packard, MassDEP, also welcomed meeting participants, and explained that the MassDEP and USCG worked jointly to commission a technical Risk Assessment (RA) to evaluate the risk of an oil spill in Buzzards Bay. The Risk Assessment raised questions about whether escort tugs are always necessary, which led to the idea of a conditioned escort policy as put forth in the ANPRM. This Risk Assessment is currently undergoing a Peer Review, which will be released at the end of September and will be included in the Docket for the ANPRM. The MassDEP will continue to work with the USCG to advance rulemaking. Input from this meeting will help guide the MassDEP and USCG in developing relevant and effective regulatory policy.

Stacie Smith, the meeting facilitator from the Consensus Building Institute (CBI), introduced the meeting ground rules, including a rule of "no attribution," meaning that no comments made during the meeting are to be attributed to individuals or groups, by others in attendance or in this meeting summary. Ms. Smith also reviewed the meeting agenda and meeting objectives. She explained that the purposes of the meeting are to (1) explore the range of views among members present on the potential conditions for tug escort requirements for double hull barges carrying oil or other hazardous materials transiting Buzzards Bay and (2) determine whether additional meetings would be useful in exploring these issues further.

Participants introduced themselves and their affiliations. (See attached list of attendees.)

Overview

Mr. LeBlanc clarified that the USCG is interested in hearing comments regarding condition-based requirements for tug escort use that may be feasible and acceptable to meeting members. He later explained that, as adopted and explained in the 2007 regulations that required tug escorts for certain single hull barges, the USCG feels that requiring tug escorts for all double-hulled barges may be unnecessary because of the other protection measures in place, including federal pilots. The USCG has not yet proposed any specific rules, but rather has published the ANPRM to consider what further measures, if any, might be appropriate to ensure navigation safety in Buzzards Bay..

Members asked for clarification on the current federal and state policies regarding transport of oil and hazardous materials across Buzzards Bay. E. LeBlanc and R. Packard clarified that the Federal rule requires an escort across Buzzards Bay (from the East end of the Canal to the West end of Buzzards Bay) for single-hulled barges carrying 5,000 or more barrels of oil or hazardous materials; no escort is required for double-hulled barges. The Massachusetts law currently requires an escort tug across Buzzards Bay for both single- and double-hulled barges carrying 6,000 or more barrels of oil; no escort is required for other hazardous materials.

Participants asked for clarification on the current status of the federal vs. state litigation. R. Packard explained that currently the Massachusetts state laws are in effect and thus double-hulled barges currently require escort tugs. Due to a history of litigation resulting in changes in implementation, there has been confusion on this point, but industry has nevertheless complied with the state rule.

E. LeBlanc and R. Packard clarified that the current meeting is not related to the litigation, but rather is motivated by the ANPRM, which specifically requested stakeholder input on the options and potential benefits of conditional escorts.

S. Smith opened the floor to ask what conditions might make sense. A participant mentioned geography as a potential condition, given that the Cape Cod Canal section of Buzzard's Bay is a particularly risky section. Another participant responded that, historically, spills have occurred outside the canal, so it is not sufficient to require escort tugs only within the canal.

Another participant expressed concern that developing conditions may not be the right approach, and the conversation shifted to whether or not condition-based requirements should be set.

Participants raised the following concerns about using any weather-related threshold conditions:

- *Determining Applicability:* Many participants felt that weather parameters such as wind, waves and visibility are relevant indicators of safe crossing, but that it would be difficult to set guidelines for these parameters that are reliably safe in all circumstances. Sea state could be used, but the appropriate restrictions would vary by visibility and barge size. Even on days with apparently calm water and good visibility, there have been occasions where escorts are

needed. There was concern that leaving weather decisions to pilots would open the door to human error and personal judgment calls that might prioritize other concerns, such as getting home for vacation.

- *Technology:* Participants noted that observational information is currently lacking. For example, the wave height buoy located at the mouth of Buzzards Bay is not currently functional; as a result there is not a good way to measure wave height. Other important weather indicators are also not publically available. Options for equipment that would do a better job seem to exist elsewhere, though these are under funding stress.
    - E. LeBlanc questioned if funds from the Mass DEP MOSPA fund may be available to support wave height monitoring equipment for Buzzards Bay. This topic was highlighted for future elaboration.
- *Variability:* Visibility and weather conditions change rapidly in Buzzards Bay (participants mentioned dramatic changes within minutes) and thus weather- and visibility-related conditions made at one point of time may no longer apply as few as 10 minutes later.
- *Visibility*: The Army Corps of Engineers (ACE) monitors visibility and follows a visibility requirement, but has no mechanism for enforcement or sharing their assessments of whether visibility is being met or not with tug escort pilots.
- *Escort tug availability:* If usage is variable, it will not be economical for industry to station tugs at all times, and then there may not be an escort available when a barge requiring one arrives, encouraging unsafe crossings or creating delay and greater constraints on barge traffic.
- *Enforcement*: It was felt that additional layers of complexity raise the difficulty of monitoring and enforcement.
- *Pilots*: While pilots can contribute to greater safety, they are subject to human error and therefore should not be relied upon exclusively. A participant noted that increased use of pilots could create safety hazards, as pilots needing to embark and disembark while underway creates a safety challenge.

Participants expressed the following reasons for requiring use of escort tugs at all times:

- *Safety*: Several participants expressed that the existing regulations work and participants did not want to roll back the level of safety that is currently being met.
- *Massachusetts residents are willing to pay:* Participants stated that the cost burden of mandatory escort tugs to Massachusetts residents is minimal, and that citizens have demonstrated their willingness to pay for escort tugs in return for the safety provided.
    - Participants noted that cost is not a justification for reducing safety. The question was raised as to whether barge companies ever choose to go around the Cape instead of through Buzzard's Bay in order to avoid the tug escort charge.
- *Gatekeeper:* In addition to providing an escort service, escort tugs provide safety services for a wide range of users of Buzzards Bay when mechanical failures or other problems occur. Historically, two Army Corps boats were stationed at the mouth of the canal to provide

protection, but these are no longer there, and participants felt that escort tugs now fill this role.

- *Verifiable:* Participants felt that monitoring and reporting weather conditions is far more difficult than monitoring and verifying use of tug escort barges for boats of certain size, type and carrying a certain material.
- *Predictability:* Several participants noted that a consistent requirement was more economically and logistically feasible for barges, to help ensure a level playing field for all.

Participants made the following suggestions and comments:

- Some participants suggested that the Federal government should not interfere, allowing the state law to govern Buzzards Bay and maintain the current regulatory policy as is.
- Other participants suggested that new Coast Guard regulations should be written to mirror the existing state regulations, providing the level of security that the state desires without raising pre-emption concerns.
- Most participants expressed that should federal rulemaking mirror state regulations, they should include the rigorous requirements about escort tug qualifications, monitoring, and verification, in order to avoid opening the door to use of tug escort whose safety equipment, crew expertise, or practices are not sufficiently sophisticated or safe.

Participants posed the following questions:

- Participants wondered whether the USCG will take over monitoring in the future in the place of MassDEP.
- It was asked whether there are currently any Coast Guard conditional escort tug requirements for double-hulled barges. E. LeBlanc responded that there are several states and regions with various conditional requirements for double hulled barges. Participants requested follow-up information on the details of these requirements and how well they were working.

Participants discussed threshold conditions that could potentially be effective in Buzzards Bay. E. LeBlanc reminded participants that, because tug escorts are not required for all barges crossing the Bay, conditions are already in effect, including: size, material and hull type. Over the course of the meeting, participants discussed additional conditions that could be set:

- *Equipment:* Type of boat influences safety, and some may be in greater need than others of tugs in all weather conditions (e.g., wire boat).
- *Weather:* Wind, waves and visibility could be measured and included in a condition, with the caveats mentioned above.
- *Extra sanctions*: Some members of industry reportedly perceive that the state regulations are voluntary, and believe that according to state law they are subject to triple damages should

an incident occur; the fact that barges consistently hire escorts under this perception suggestions that the risk of sanctions could serve to motivate the use of escorts.

Follow-up meeting:

Several participants expressed feeling that another meeting to discuss the wider issues associated with the proposed rulemaking, above and beyond conditions for escort tugs, would be useful. R. Packard offered to look into whether MassDEP would sponsor another meeting, with an agenda drawn from outstanding topics from today. When asked if any other viewpoints might be missing, it was mentioned that there might be other tug and barge industry representatives who were not present at this meeting.

S. Smith thanked members for a productive meeting.

Schedule of next steps:

The Consensus Building Institute will summarize the meeting events in a summary document (this Draft Meeting Summary.) Meeting members will review meeting the draft summary document and suggest any needed revisions. CBI will make any corrections and finalize the Summary. The final meeting summary document will be included in the Docket for the ANPRM.

Meeting Attendees

Alan Bish, Reinauer Towing

Capt. Tom Bushy, Massachusetts Pilot Commissioner

Joseph Costa, Buzzards Bay National Estuary Program

Elise DeCola, Nuka Research & Planning

Mark Foley, Boston Coastwise Pilots

John Kaufmann, Boston Coastwise Pilots

David Janik, Mass Coastal Zone Management

Ed Le Blanc, US Coast Guard

Elizabeth Leidhold, Buzzards Bay Action Committee

Brian Mulvey, Army Corp of Engineers

John MacPherson, Army Corp of Engineers

Howard McVay, Northeast Marine Pilots

Clint Watson, Northeast Marine Pilots

Gary Oliveria, McAllister Towing of Narragansett Bay

Richard Packard, MassDEP

Korrin Peterson, Buzzards Bay Coalition

United States Coast Guard
U.S. Department of Homeland Security

News Release

Dec. 7, 2017
U.S. Coast Guard 1st District Northeast
Contact: 1st District Public Affairs
Office: (617) 223-8515
After Hours: (617) 717-9609

Coast Guard announces Ports and Waterways Safety Assessment on Buzzards Bay, seeks participants

BOSTON — The U.S. Coast Guard will conduct a Buzzards Bay Ports and Waterways Safety Assessment (PAWSA) workshop in February and is soliciting participants.

A longstanding and proven Coast Guard process and formal public study, a PAWSA is a joint effort involving waterway users, stakeholders, and agencies that will identify ways to improve the safety of Buzzards Bay.

Participants will convene in Wareham on February 7-8 for a structured workshop aimed to ensure the environmental protection and safe navigation of the Buzzards Bay waterway system.

The workshop will involve structured, facilitated sessions to focus on identifying major waterway safety hazards, estimating risk levels, and evaluating risk mitigation measures.

The Coast Guard has sponsored and led more than 50 PAWSA studies nationwide since 1999.

The Coast Guard will select participants based on their waterway expertise and to create a broad cross-section of Buzzards Bay stakeholders. Members of the public who wish to participate in the workshop are invited to provide their name, contact information, connection to the waterway, experience, and related skills to buzzardsbaypawsa@uscg.mil by December 22, 2017. Formal invitations to selectees will follow.

More information about the PAWSA process and previously conducted workshops can be found here: https://www.navcen.uscg.gov/?pageName=pawsaMain

Coast Guard experts will host two informational webinars on the PAWSA process on Jan. 10, at 10 a.m. and 7:00 p.m. For webinar access, participants and interested community members should go to https://www.navcen.uscg.gov/?pageName=pawsaMain.

U.S. Department of Homeland Security
United States Coast Guard

Commander
U.S. Coast Guard
Sector Southeastern New England

1 Little Harbor Road
Woods Hole, MA 02543
Staff Symbol: S
Phone: (508) 457-3219
Fax: (508) 457-3123

16000
January 12, 2018

Dear Buzzards Bay PAWSA participant:

Welcome to the Buzzards Bay Ports and Waterways Safety Assessment (PAWSA)! Enclosed is a read ahead-package that includes general information about the workshop objectives and process. It also contains information specific to Buzzards Bay in terms of both its physical characteristics and recent history of navigation. For your convenience a workshop agenda and list of participants is also included.

A thorough review this package before the PAWSA will help you and all the participants, as a group, provide thoughtful input throughout the workshop.

So I encourage you to take the time to thoroughly familiarize yourself with this read-ahead package. Should you have any questions or concerns about the Buzzards Bay PAWSA, or note any factual errors in the package, or have suggestions on how we might address items within the package during PAWSA introductions, please contact Ed LeBlanc at [redacted] or [redacted].

Lastly, feel free to bring to the PAWSA any data, documentation, or other reference material you feel may be relevant to the workshop.

Thank you in advance for your participation in the Buzzards Bay PAWSA, and I look forward to working with you during this important workshop next month.

Sincerely,

Richard J. Schultz
Captain Of The Port
Southeastern New England

Buzzards Bay

Ports and Waterways Safety Assessment

February 7th-8th, 2018

Read-ahead Package

Buzzards Bay Ports And Waterways Safety Assessment (PAWSA)
February 7th and 8th, 2018
TownePlace Suites Marriott, Wareham, MA

AGENDA

Day One

8:00 –	8:30 a.m.	PAWSA Program Manager and Sponsor Introductions
8:30 –	8:45 a.m.	Participant and Observer Introductions
8:45 –	9:00 a.m.	Day 1 - Workshop Agenda Overview
9:00 –	9:30 a.m.	PAWSA Background
9:45 –	10:45 a.m.	Waterway Risk Model Explanation
11:15 –	12:00 a.m.	Baseline Risk Level Discussions
12:00 –	1:00p.m.	Lunch
1:00 –	4:00 p.m.	Baseline Risk Level Discussions / Evaluation
4:15 –	4:45 p.m.	Team Expertise Cross-Assessment
4:55 –	5:00 p.m.	Session Wrap-up

Day Two

8:00 –	8:30 a.m.	Day 2 - Workshop Agenda Overview
8:30 –	8:45 a.m.	Baseline Risk Levels / Results
8:45 –	12:00 a.m.	Existing Risk Mitigation Discussions / Evaluation
12:00 –	1:00 p.m.	Lunch
1:00 –	1:15 p.m.	Existing Risk Mitigations / Results
1:15 –	4:15 p.m.	Additional Risk Intervention Discussions / Evaluation
4:30 –	4:40 p.m.	Workshop Critique
4:40 –	4:50 p.m.	Additional Risk Interventions / Results
4:50 –	5:00 p.m.	Workshop Wrap-Up

NOTE: *10-minute breaks will occur approximately every hour and a half.*

BUZZARDS BAY PAWSA 2018
Confirmed Participants
Updated 16 January 2018

	Participant Group	User Group (WU: Waterway User S: Stakeholder)	Entity	Last Name	First Name	Title
1.	Tug/Barge Industry	WU	1. Reinauer Transportation	DiGiovanni	Paul	Captain
		WU	2. McAllister Towing	Gary	Oliveira	Captain
		WU	3. Boston Tug and Towing	Power	Michael	Captain
2.	Commercial Vessel Industry	WU	4. Northeast Marine Pilots	Bogus	Sean	Captain
		WU	5. Canal Pilots	Foley	Mark	Captain
3.	Passenger Vessel Industry	WU	6. Steamship Authority	Gifford	Charles	Captain
		WU	7. Seastreak (New Bedford/MV Ferry)	Welch	Pat	Mr.
4.	Commercial Fishing Industry	WU	8. Mass Div of Marine Fisheries	Churchill	Neil	Mr.
		WU	9. Bryant Bros. Shellfish	Bryant	Christopher	Mr.
		WU	10. Cuttyhunk Shellfish Farm	Garfield	Seth	Mr.
5.	Regulators/Law Enforcement	WU	11. Coast Guard Sector SENE	Schultz	Richard	Captain
		S	12. Corps of Engineers/Cape Cod Canal	MacPherson	John	Mr.
		S	13. MA DEP	Hutchinson	Julie	Ms.
		S	14. MA CZM	McKenna	Steve	Mr.
		WU	15. MA MEP	Moran	Patrick	Mr.
		WU	16. Marion Harbormaster	Perry	Issac	Mr.
6.	Recreational Boating	WU	17. Recreational Boating	Sweet	Robert	Mr.
		WU	18. Beverly Yacht Club*	TBD	TBD	
7.	Environmental Organizations	S	19. Coalition for Buzzards Bay	Rasmussen	Mark	Mr.
		S	20. Buzzards Bay National Estuary Program	Costa	Joe	Mr.
		S	21. NUKA Research	DeCola	Elise	Ms.

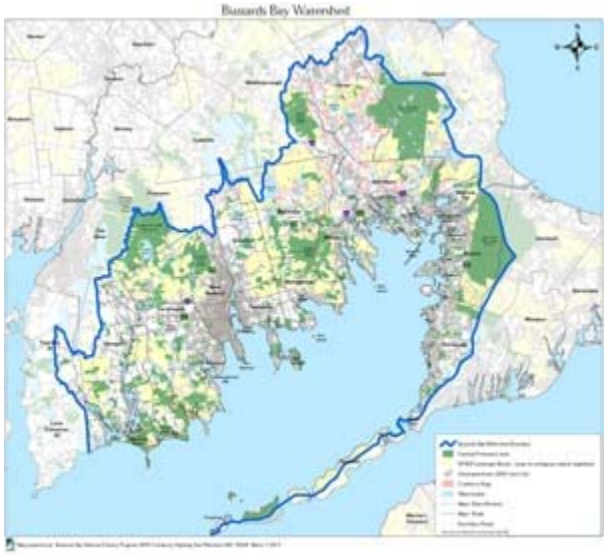
BUZZARDS BAY PAWSA 2018
Confirmed Participants
Updated 16 January 2018

	Participant Group	User Group (WU: Waterway User S: Stakeholder)	Entity	Last Name	First Name	Title
8.	Local Municipalities	S	22. New Bedford HDC	Anthes-Washburn	Edward	Mr.
		S	23. Buzzards Bay Action Committee	Leidhold	Elizabeth	Ms.
9.	First Responders	WU	24. Buzzards Bay Task Force	Gomes	Michael	Chief
10.	Miscellaneous	S	25. MA Pilot Commissioner, District 3 (Buzzards Bay)*	Bushy	Tom	Captain
		S	26. NOAA Scientific Support Coordinator	Lehmann	Steven	Mr.
		S	27. NOAA Northeast Navigation Manager	Vejar	David	Lieutenant
		WU	28. MA Maritime Academy	Pham	Tom	Mr.
		WU	29. USCGC JUNIPER	Singletary	John	Lieutenant Commander
		S	30. Frank Corp (OSRO)*	TBD	TBD	
11.	Native American	S	31. Mashpee Wampanoag*	Washington	Bettina	Ms.

Buzzards Bay Quick Facts (excerpts reprinted with permission of the Buzzards Bay National Estuary Program)

Buzzards Bay is a moderately large estuary located between the western most part of Cape Cod, Southeastern Massachusetts, and the Elizabeth Islands. The bay is 28 miles long (45 kilometers), averages about 8 miles (13 kilometers) in width, and has a mean depth of 36 feet (11 meters). The definition of the southern boundary of the bay varies with different jurisdictions and agencies. The bay and its estuaries total approximately 233 square miles (603 square kilometers) if using an older nautical chart definition of Buzzards Bay, which is a line from the tip of Gooseberry Point, Westport to Cuttyhunk Island, with the waters further south typically labeled Rhode Island Sound. For management purposes, however, Massachusetts state agencies include the Westport Rivers in the Buzzards Bay watershed and draw a line defining the bay from the Rhode Island – Massachusetts border. The Buzzards Bay NEP jurisdictional area is a line drawn from this point to the tip of Cuttyhunk Island. This definition of Buzzards Bay totals 250 square miles. If All Commonwealth of Massachusetts waters south of this line area included (which includes a small portion of Rhode Island Sound), the area totals 279 sq. miles.

The coastline of Buzzards Bay (including Westport) stretches over 350 miles (563 kilometers– this includes the outer coast and harbor and estuary coastlines, and the bay facing coasts of the Elizabeth Islands, but excludes the portions of the Cape Cod Canal within the watershed) and includes more than 13 miles (21 kilometers) of public beaches that lure thousands of tourists from Massachusetts and neighboring states. More than 12,000 boats can be found moored or on Buzzards Bay during peak summertime holidays.



Buzzards Bay is part of the Atlantic Intracoastal Waterway system, and is connected to Cape Cod Bay by the Cape Cod Canal. The 480-foot wide Cape Cod Canal (operated by the US Army Corps of Engineers) is the world's widest sea-level canal, and has a navigational depth of 32 feet

at mean low water. As noted on the Army Corps Cape Cod Canal website, more than 20,000 vessels pass through the Canal annually. Many of these vessels are smaller recreational vessels, but in a busy 24 hour period, perhaps 30 to 60 larger transport vessels including tankers, barges, tugs, ferries, fishing vessels, container vessels, cruise ships, and other transport vessels pass through the canal. In 2002, the Army Corps noted that 1.9 to 2.0 billion gallons of petroleum products were shipped through the Cape Cod Canal annually (more info).

Buzzards Bay's largest port New Bedford Harbor, is home to one of the largest fishing fleets on the East Coast, with approximately 270 vessels. For the past 5 years, the fleet ranked number one in the nation in terms of dollar value landed.

Eleven coastal communities share the bay (City of New Bedford and Towns of Westport, Dartmouth, Acushnet, Fairhaven, Mattapoisett, Marion, Wareham, Bourne, Falmouth, and Gosnold (Elizabeth Island Chain, town hall on Cuttyhunk Island), and 5 more are in the watershed, including nearly all of Rochester, and large portions of Plymouth, Carver, Middleborough, and Fall River. The Buzzards Bay watershed or drainage basin covers 434 square miles (1123 square kilometers) and includes all or sections of 17 municipalities. The watershed includes small portions of two additional communities in Massachusetts and portions of three communities in Rhode Island.

Based on the 2000 US Census, the population within the watershed boundaries (including the watershed portions of Falmouth and Bourne) is roughly 260,000 persons in 115,000 housing units, with a median age of 32 for the population.

Along its western shore (west of the Cape Cod Canal) the drainage basin is formed by seven major river basins and a number of smaller ones. The largest river basins include the Agawam, Wankinco, Weweantic, Mattapoisett, Acushnet, Paskamanset, and Westport. The eastern shore of Buzzards Bay (Cape Cod Canal to Woods Hole) is drained mostly by groundwater. Several river systems smaller than those on the western shore also drain this portion of the basin. The prominent freshwater streams along the eastern shore are the Back , Pocasset, and Wild Harbor Rivers and Herring Brook.

In general, rivers within the drainage basin are slow-moving, meandering streams near their headwaters and for most of their freshwater length. Nearing the coast, the action of the tides rapidly widens the channels as the transition occurs from freshwater stream to tidal estuary. On average, Buzzards Bay rivers are considerably shorter (usually much less than 20 miles (34 kilometers) and have smaller drainage areas than other rivers within the state.

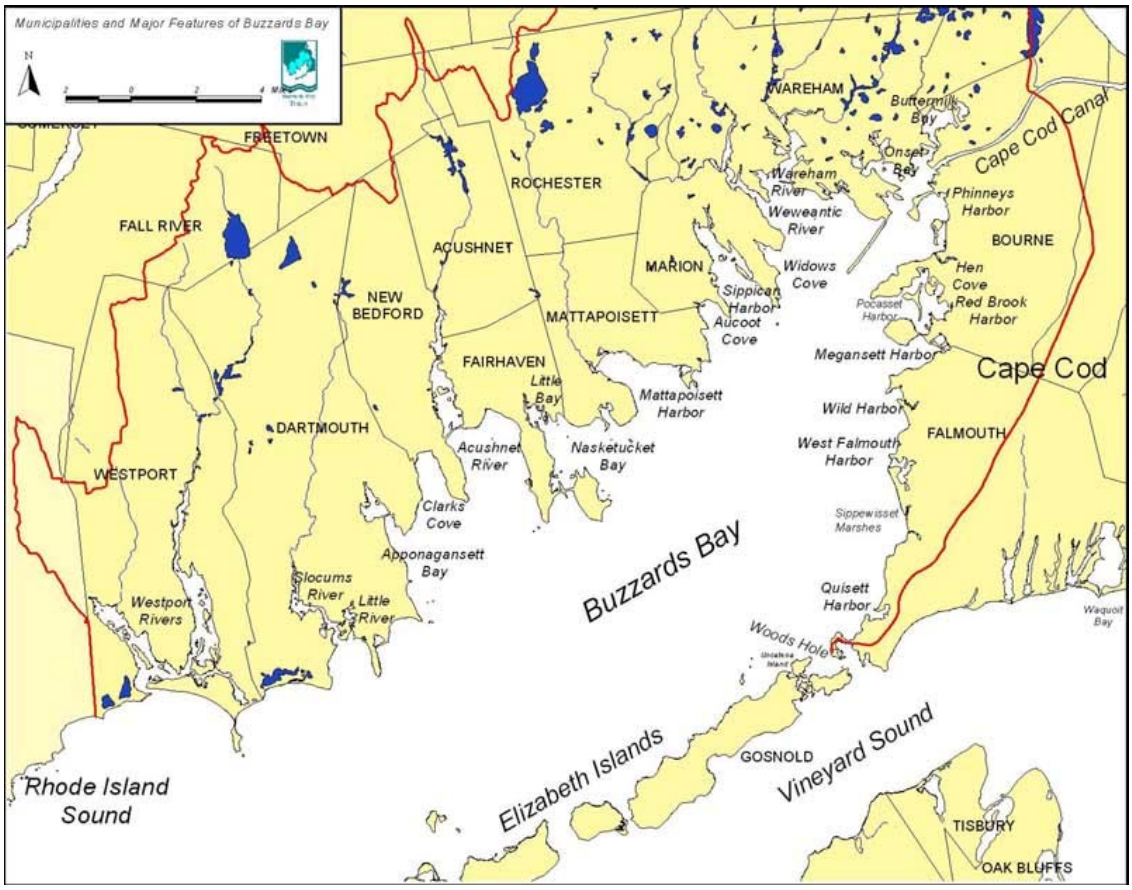
The Bay was formed during the last ice age approximately 15,000 years ago. Before that, Buzzards Bay was periodically submerged as glaciers advanced and retreated through the region, causing sea levels to rise and fall. The southeastern side of the Bay (Bourne, Falmouth, and the Elizabeth Islands) consists of glacial debris deposited by the glacier's leading edge. Consequently, it has a relatively smooth shoreline composed mostly of sand and gravel particles. The northwestern side (Wareham to Westport), with its numerous elongated bays and inlets, was

formed by the glacier's retreat to the north. Many of these bays and inlets have since become sheltered from the ocean through the formation of barrier spits.

Tidal currents and wind are the dominant circulation forces in Buzzards Bay because the Elizabeth Islands protect the bay from large, long-period, open-ocean waves. Complete tidal mixing of Bay water with ocean water is estimated to occur every 10 days.

Water temperatures in the Bay range from a summer maximum of 71.6°F (22 °C) to 28 °F (-3 °C) in winter. During colder winters, the upper reaches of the Bay often freeze, whereas during the spring and summer, solar warming keeps surface waters warmer than the deeper waters. The water temperature gradually decreases in relation to depth until a point is reached at which the temperature drops abruptly. Below that point, known as the thermocline, the temperature resumes a gradual drop until the coldest depths are reached at the bottom. The thermocline can act as a barrier to vertical mixing within estuaries and bays. Water turbulence helps to break up the thermocline and diminish layering. The shallowness of the Bay, combined with surface wave mixing and turbulent tidal flow, prevents strong thermal stratification, so that the Bay is well mixed through most of the year.

Salinity has a small annual range and gradually increases offshore. There are few large streams bringing fresh water into the Bay, with the result that salinity offshore is essentially the same as that of other embayments, such as Block Island and Vineyard Sounds, that receive relatively little fresh water. In the semi-enclosed embayments along shore, salinity is more variable. Overall, the Bay is a tidally dominated, well-mixed estuarine system.


Municipalities and Major Features of Buzzards Bay
N
FREETOWN
FALL RIVER
ROCHESTER
ACUSHNET
NEW BEDFORD
MARION
MATTAPOISETT
FAIRHAVEN
DARTMOUTH
WESTPORT
WAREHAM
Buttermilk Bay
Cape Cod Canal
Onset Bay
Wareham River
Weweantic River
Phinneys Harbor
BOURNE
Widows Cove
Hen Cove
Red Brook Harbor
Sippican Harbor
Aucoot Cove
Pocasset Harbor
Megansett Harbor
Cape Cod
Little Bay
Mattapoisett Harbor
Wild Harbor
FALMOUTH
Acushnet River
Nasketucket Bay
West Falmouth Harbor
Sippewissett Marshes
Clarks Cove
Apponagansett Bay
Buzzards Bay
Slocums River
Little River
Westport Rivers
Quisett Harbor
Waquoit Bay
Woods Hole
Elizabeth Islands
GOSNOLD
Vineyard Sound
Rhode Island Sound
TISBURY
OAK BLUFFS

Excerpts from NOAA Coast Pilot 2 (2018), Chapter 5, Vineyard Sound and Buzzards Bay

No-Discharge Zone

The State of Massachusetts, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in all coastal waters of Massachusetts covered by this chapter except a small area from Woods Hole to Vineyard Haven, extending about 3 miles offshore (see charts 13246 and 13237).

Within the NDZ, discharge of sewage, whether treated or untreated, from all vessels is prohibited.

Weather: Vineyard Sound, Buzzards Bay and vicinity: Buzzards Bay is open to winds out of the south and southwest, which are common from spring through fall. Winds increase as they move from the surrounding land out over the Bay. Its northeast-southwest orientation causes southwesterlies to strengthen as they funnel up from the mouth of the Bay to its head. The result is that speeds are often double those at nearby land stations and southwesterlies may prevail even when land stations are reporting west or northwest winds. However, as a general rule southwesterlies blow harder close to the Elizabeth Islands than in the middle of the Bay. The relatively shallow water of the Bay increases the steepness of waves and their closeness to one another; this can cause a stiff chop. With southerly or westerly gales there is a heavy sea in the westerly entrance to Vineyard Sound and heavy seas occur at times off the entrance to Quicks Hole.

Pilotage, Vineyard Sound and Buzzards Bay: Pilotage is compulsory for foreign vessels of 350 gross tons or more, U.S. vessels under register of 350 gross tons or more, and tank barge towing vessels carrying 6,000 barrels or more of petroleum cargoes. Pilotage is available from Northeast Marine Pilots, Inc., Newport, RI, 02840; telephone 401–847–9050 (24 hours), 800–274–1216; FAX 401–847–9052; email: dispatch@nemarinepilots.com.

Charts 13218, 13228, 13230, 13229

Buzzards Bay is the approach to New Bedford, many small towns and villages, and the entrance of Cape Cod Canal. The bay indents the south shore of Massachusetts, extending in a northeasterly direction from **Rhode Island Sound**. The bay is enclosed on the south side, and separated from Vineyard Sound, by the Elizabeth Islands.

The shores are irregular, rocky in character, and broken by many bays and rivers. Large boulders are common, in places extending a considerable distance from shore, thus making close approach to the shore dangerous.

The bottom in the main part of the bay and approach is very broken with boulder reefs in places. Vessels should proceed with caution when crossing shoal areas in the tributaries of the bay where the depths are not more than about 6 feet greater than the draft. Caution

must also be exercised in the vicinity of the wrecks shown on the chart. Deep water prevails as far as Wings Neck, above which the bay is full of shoals.

Buzzards Bay has six entrances, but two of these are so narrow and dangerous as to exclude their use except by small craft with local knowledge. The four major entrances are the main channel, from westward, passing north of Cuttyhunk Island; Cape Cod Canal from northeastward; and Quicks Hole and Woods Hole from the southward. The two hazardous entrances are Canapitsit Channel, between Cuttyhunk and Nashawena Islands, and Robinsons Hole, between Pasque and Naushon Islands.

The western entrance has a clear width of 4.3 miles between Sow and Pigs Reef and Hen and Chickens. The bottom in this entrance is irregular and rocky, and there are spots with depths of 17 to 34 feet. Because these shoal areas are surrounded by deeper water, vessels of 16-foot draft or more must exercise extra caution when entering the bay. In heavy southwest gales the sea breaks over some of these spots.

The best guides for entering the bay from westward are Buzzards Bay Entrance Light and the lighted buoys in the entrance. Gay Head Light and Buzzards Bay Entrance Light are the guides for vessels approaching from the southward.

Buzzards Bay Entrance Light (41°23'49"N., 71°02'05"W.), 67 feet above the water, is shown from a tower on a red square superstructure on red piles about 4 miles 255° from the southwest corner of Cuttyhunk Island. The name BUZZARDS is painted in white on the sides. A racon is at the light and a mariner activated sound signal at the light is initiated by keying the microphone five times on VHF-FM channel 83A.

Recommended Vessel Route (Buzzards Bay) has been established in the approach to Buzzards Bay through Rhode Island Sound.

The U.S. Coast Guard Captain of the Port, Providence, in cooperation with the Southeastern Massachusetts and Rhode Island Port Safety and Security Committees, has established a Recommended Vessel Route for deep draft vessels and tugs/barges transiting Rhode Island Sound, Narragansett Bay, and Buzzards Bay. Deep draft vessels and tugs/barges are requested to follow the designated routes. These routes were designed to provide safe, established routes for these vessels, to reduce the potential for conflict with recreational boaters, fishing gear, and other small craft, and to reduce the potential for grounding or collision. Vessels are responsible for their own safety and are not required to remain inside the route nor are fisherman required to keep fishing gear outside the route. Small vessels should exercise caution in and around the Recommended Vessel Routes and monitor VHF channels 16 or 13 for information concerning deep draft vessels and tugs/barges transiting these routes.

Anchorages

New Bedford Inner Harbor affords anchorage for vessels of 25-foot draft. Cuttyhunk Harbor affords anchorage in depths of 10 to 24 feet; except for the small-craft inner harbor, it is exposed to northerly winds. A good anchorage sheltered from all southerly

winds may be had off the north shore of Nashawena Island eastward of Penikese and Gull Islands in depths of 40 to 48 feet. This anchorage, frequently used by tows, is available for vessels of any draft; however, care must be taken to stay clear of the fishtrap area in the vicinity. Two general anchorages are off the western entrance to Cape Cod Canal

Dangers

Hen and Chickens extending 1.4 miles southward of Gooseberry Neck, is a reef consisting of many large boulders, most of them baring a foot or less. The reef is in two large groups; the southerly group is the larger. Numerous covered rocks are well away from the visible part of the danger. A narrow ledge covered 5 to 14 feet extends about 0.4 mile northward from the visible part of Hen and Chickens. A buoy is north of the ledge. **Old Cock,** a rock awash, and **The Wildcat** covered 5 feet and unmarked, are in the southern shoal area. The south edge of the shoal is marked by a buoy. Strangers are advised to stay outside the 5-fathom curve in this vicinity.

Sow and Pigs Reef much of which is dry or awash, extends about 1.5 miles west-southwestward from Cuttyhunk Island. Its outer end is marked by a lighted bell buoy. An unmarked rock strewn shoal, covered 20 feet, is 0.9 mile westward of Cuttyhunk Island. Numerous obstructions and rocks were reported to extend as much as 3 miles southward of Sow and Pigs Reef.

Ribbon Reef a detached ledge covered 18 feet, is about 1.5 miles northwestward of Cuttyhunk Island. **Coxens Ledge** covered 28 feet and marked by a lighted bell buoy, is 1.2 miles northward of Ribbon Reef.

Mishaum Ledge a group of several rocky spots with a least depth of 8 feet, extends about 1.7 miles southward of Mishaum Point. It is marked by a lighted gong buoy off its southeast end. A lighted bell buoy marks a rocky shoal covered 22 feet about 1 mile north-northwestward of the north end of Penikese Island. An unmarked rocky shoal covered 18 feet is 0.5 mile north of the island.

Currents: The tidal currents in the passages between Buzzards Bay and Vineyard Sound have considerable velocity and require special attention. At Buzzards Bay Lighted Gong Buoy 3, the tidal current is rotary, turning clockwise. Tide rips occur when a sea is running against the current. Maximum velocities are about 0.5 knot. Minimum velocities average about 0.2 knot. (See the Tide Tables and Tidal Current Tables for predictions.)

Ice: The head of Buzzards Bay and the harbors in that vicinity are generally closed to navigation during the winter. The approaches to the harbors on the eastern shore are rendered dangerous by drift ice. In severe winters the drift ice extends across the bay and joins the local formations on the western shore, forming an impassable barrier for short periods. Ice forms more rapidly in the bay with winds from north to west as the western shore forms a shelter from such winds. When the field ice extends sufficiently out toward the channel as to be affected by the winds from north to west, the outer edges are broken up and carried off to the eastern or southern shore where they form drift ice. Under ordinary circumstances a northeast wind, if continued for 48 hours, will clear the bay of

ice. Southerly winds, especially southeastern, diminish the extent and weaken the strength of the pack. Some of the lighted buoys are removed from station or replaced by unlighted buoys when endangered by ice.

The southern side of Buzzards Bay from Cuttyhunk to Woods Hole has been discussed previously in this chapter.

Cape Cod Canal

Cape Cod Canal is a deep-draft sea-level waterway connecting Buzzards Bay and Cape Cod Bay. The waterway is 15 miles long from Cleveland East Ledge Light to deep water in Cape Cod Bay. The canal shortens the distance between points north and south of Cape Cod by 50 to 150 miles and provides an inside passage to avoid Nantucket Shoals. The canal is maintained by the Federal Government as a free waterway. (See **33 CFR 207.20** chapter 2, for the regulations governing the use, administration, and navigation of the Cape Cod Canal.)

Traffic lights (red, green, and yellow) are located at the easterly canal entrance at Sandwich; at the Canal Electric Terminal basin on the south side of the canal at Sandwich; and at the westerly entrance of Hog Island Channel at Wings Neck. These signals apply to all vessels over 65 feet in length that desire to transit the canal. (See **33 CFR 207.20(h),** chapter 2, for detailed information on signals.)

Prominent features
Cleveland East Ledge Light (41°37'51"N., 70°41'39"W.), 74 feet above the water, is shown from a white cylindrical tower and dwelling on a red caisson on the east side of the entrance channel approaching Cape Cod Canal from Buzzards Bay. A racon and sound signal are at the light station. The railroad bridge over the canal at the village of Buzzards Bay, and the highway bridge at Bourne are also prominent.

Cape Cod Canal Breakwater Light 6 (41°46'47"N., 70°29'23"W.), 43 feet above the water, is shown from a red cylindrical tower on the end of the north breakwater at the east entrance to Cape Cod Canal from Cape Cod Bay. A mariner radio actived sound signal is at the light, initiated by keying the microphone five times on VHF-FM channel 83A. The most prominent landmark when approaching from Cape Cod Bay is the tall lighted stack of the powerplant about 1.1 miles west-southwestward of Cape Cod Canal Breakwater Light 6. The high-level highway bridge across the canal at Sagamore, 2.5 miles west of the breakwater light, is also prominent. The breakwaters at the east entrance to the canal should not be confused with the smaller jetties at Sandwich Harbor, 1 mile to the southeastward, nor should the two white church spires back of Sandwich Harbor be mistaken for the range structure marking the entrance to the canal.

Anchorages: General anchorages are on each side of Cleveland Ledge Channel between Cleveland East Ledge Light and Wings Neck. (See **33 CFR 110.1** and**110.140 (b)** and **(d),** chapter 2, for limits and regulations.) In 1971, a dangerous submerged rock was reported

just inside the easterly edge of Anchorage D in about 41°40'05"N., 70°40'17"W. In 1984, an obstruction was reported in Anchorage C in about 41°40'00"N., 70°41'35"W.

Mooring basins, with tieup dolphins, are at both ends of the canal. One is on the east side of Hog Island Channel abreast of Hog Island, where shoaling to bare in about 41°43'49"N., 70°37'53"W. was reported in 1979. The other is just inside the eastern entrance to the canal. A small boat basin is on the south side of the channel just inside the eastern entrance to the canal; depths of 8 to 13 feet were available in the basin in 1969.

Currents: Daily predictions for the tidal current in Cape Cod Canal at the railroad bridge are given in the Tidal Current Tables. Under ordinary conditions, the tidal current has a velocity of 4.0 knots on the flood, which sets eastward, and 4.5 knots on the ebb, which sets westward. Large differences in range and timing of the tide between Buzzards Bay and Cape Cod Bay cause strong currents in the canal. Tides may lower the canal level 2 feet below mean low water or even more if attended by heavy offshore winds.

Due to the strong tidal currents in the canal, especially during spring tides, low-powered vessels should await slack water or favorable current. Navigators are warned to be on the alert for possible “bank suction” and “bank cushion” the effects of which may cause a vessel to take a sudden and decided sheer.

Weather: Buzzards Bay and vicinity: Fog is said to be less dense over Cape Cod Canal than outside, but at times a water vapor rises from the canal to such an extent that traffic has to be suspended. The canal proper never has been closed by ice, but occasionally Buzzards Bay and Cape Cod Bay become so congested with ice that navigation through the canal is prevented.

Pilotage, Cape Cod Canal and Buzzards Bay: At the canal, Canal Traffic Control “WUA21” or “Cape Cod Canal Control” monitors VHF-FM channels 16, 13 and 14; usually works on 14. The Masters of all vessels required by the Coast Guard to carry a pilot are required to notify Canal Traffic Control prior to entering the waterway with information as specified in **33 CFR 207.20(k),** Management of Vessels (see chapter 2).

Pilotage is compulsory for Buzzards Bay for foreign vessels of 350 gross tons or more, U.S. vessels under register of 350 gross tons or more and towing vessels in-tow with single hull tank barges carrying 5,000 barrels or more of petroleum and hazardous cargoes. Federal and State pilots are available from Northeast Marine Pilots, Inc. and from Boston Coastwise Pilots. However, all pilotage that is compulsory under M.G.L. C. 103 shall be dispatched through the pilot dispatch office of Northeast Marine Pilots regardless of pilot group affiliation. Northeast Marine Pilots, Inc., Newport, RI 02840; nemarinepilots.com; telephone 401–847–9050 (24 hours), 800–274–1216; FAX 401–841–9052; email: dispatch@nemarinepilots.com. Boston Coastwise Pilots is in Winthrop, MA 02152; telephone 617–510–0082, 508–801–4904; email: boscopilots@aol.com. Twenty-four hour advance notice and 3 hour updates are requested.

Communications
Information on operating conditions, widths, depths, or other data on the canal is available at all hours, day or night, by calling the canal office at Buzzards Bay at 508–759–4431.

Vessels which are to transit the Cape Cod Canal will monitor channel 16 continuously to establish contact with traffic controllers. The vessels will be asked to switch to channel 12 or channel 14 as a working channel to pass information between the traffic controllers and the vessel. However, channel 13 may be used only when the above channels are not available.

The radiotelephone at the Cape Cod Canal Office, Buzzards Bay, MA, is in continuous operation. Call letters are WUA-21, and the frequencies are channels 13, 16, 12, and 14. Vessels equipped for communication with the Cape Cod Canal Office are requested to keep their radiotelephone tuned to these frequencies.

New Bedford

New Bedford is a manufacturing city on the west side of the Acushnet River. **Fairhaven** is on the east side of the river. Principal shipping includes receipt of general cargo and frozen fish; exports are general cargo. Commercial fishing craft operate from the ports. The deepest draft entering is about 30 feet at high water.

The approach from Buzzards Bay and the entrance to New Bedford Harbor are much obstructed by ledges and shoals, between which are several channels leading to the dredged entrance. The bottom is very broken, characterized by large boulders; vessels should proceed with caution when crossing areas off the general track when the charted depths are not more than 6 to 8 feet greater than the draft.

Significant Buzzards Bay Navigation Risk Mitigations Since 2003:

Vessel Movement Reporting System (VMRS) Buzzards Bay: After the April, 2003, B-120 oil spill in Buzzards Bay the notion of a vessel traffic service for the Bay was broached at several levels. Participants in the September 2003 Buzzards Bay PAWSA found that some risk factors may be mitigated through a vessel traffic service. In September of 2004 the Coast Guard Captain of the Port Providence (predecessor of Sector Southeastern New England) requested the establishment of VMRS Buzzards Bay. VMRS Buzzards Bay was established in 2007 as part of a larger rulemaking amendment to the First District Regulated Navigation Area that provided for special measures within Buzzards Bay for oil-laden single-hull tank barges.

VMRS Buzzards Bay is a passive vessel traffic service. A vessel subject to the VMRS regulation will pass its voyage intentions to VMRS Buzzards Bay Control. Buzzards Bay Control will then monitor vessel movements to ensure consistency with its intentions. Violations of VMRS regulations are passed to the Coast Guard for action. VMRS Buzzards Bay Control is operated on behalf of the Coast Guard by the U.S. Army Corps of Engineers at the Cape Cod Canal. Approximately 7000 vessels participate in the VMRS annually as they transit Buzzards Bay.

Escort Tugs: In August of 2004 the Commonwealth of Massachusetts passed the Massachusetts Oil Spill Prevention and Response Act (MOSPRA) which, among other things, required escort tugs for all tank barges carrying 6000 or more barrels of oil. During the times that a federal district court injunction was in place from 2005 to 2011 the state provided an escort tug free of charge. When the injunction was lifted in 2011, the state once again began to enforce its escort tug statute, which remains in effect today.

2003 PAWSA Buzzards Bay: Subsequent to the April 2003 B-120 oil spill, in September of that year the Coast Guard hosted a Buzzards Bay PAWSA. At this workshop there were 26 participants and 16 observers including waterway users, federal, state and municipal officials, congressional representatives, marine pilots, terminal managers, environmental representatives, and other key stakeholders. A broad spectrum of mitigations were discussed to reduce risk, including vessel traffic service, mandatory tug escorts, recommended vessel routes, improved crew licensing and certification, etc.

Other improvements: Improvements in navigation safety in Buzzards Bay since 2003 include:

- Mandatory participation in the Vessel Movement Reporting System
- New Coast Guard construction, equipment and crew regulations for towing vessels
- Comprehensive Coast Guard licensing requirements for tow vessel operators
- Exclusively double-hull tank barges (single-hull tank barges prohibited)
- Massachusetts escort tug requirement for all tank barges transiting the canal

- Improved radar coverage and communications capability by Cape Cod Canal Control to cover all of Buzzards Bay
- Enhanced Automated Information System (AIS) capabilities on vessels to provide comprehensive navigation information. (An industry led technology advancement)
- Anchorage area relocation to improve tug access and to avoid environmentally sensitive areas.
- Charted recommended vessel routes
- Improved aids-to-navigation, including a new weather data buoy in Cape Cod Bay
- Improved firefighting capabilities and cooperation through the interagency federal/state/local Buzzards Bay Task Force.
- Pre-positioned pollution response trailers at all coastal communities
- Geographic response plans for key waterways

Federal regulatory history since the B-120 oil spill: Following the 2003 Bouchard B-120 oil spill in Buzzards Bay, the Coast Guard amended the 1996 District-wide Regulated Navigation Area (RNA) on August 30, 2007. The amendment included a new section, "Special Buzzards Bay Regulations" that included requirements for:

- Federal pilot, not a member of the crew, for single hull tank barges
- Escort tugs for single hull tank barges
- Participation in the Buzzard's Bay Vessel Movement Reporting System (VMRS) by tank barges and other vessels.

In 2013 the Coast Guard published an Advanced Notice of Proposed Rulemaking (ANPRM) requesting public comments and feedback on "how best to enhance environmental protections and navigation safety" and, specifically, requested comments on the following:

- A new requirement for a federal pilot, not a member of the crew, for double hull tank barges
- A new requirement for escort tugs for double hulls under certain conditions (e.g., adverse weather, equipment limitations)
- Amending the participation requirements for the VMRS to focus on tank barges, rather than on all marine traffic

44 comments were received. A large majority of comments requested that (a) the Coast Guard require a pilot, not a member of the crew, for double hull tank barges, and (b) the Coast Guard require tug escorts for double hull tank barges at all times (not just under certain conditions). Comments were mixed regarding whether to adjust participation requirements for the VMRS. The Massachusetts Executive Office of Environmental Affairs and the Department of Environmental Protection supported the use of and independent federal pilot. Other comments recommended a local (state) licensed pilot.

Other risk assessments since 2003:

DHS Risk Assessment (DHS RA) for Buzzards Bay: In 2012 the Massachusetts Department of Environmental Protection (MassDEP) and the Coast Guard contracted with the DHS Security System Engineering and Development Institute (HS-SEDI) to conduct a Technical Risk Assessment to evaluate measures that may reduce the risk of an oil spill. Completed in January 2013, the HS-SEDI Report found that the requirement of an independent pilot (either state or federal) would provide the greatest risk reduction. The requirement for double-hull barges was the second most significant contributor to reducing risk. A tug escort requirement was found to contribute to risk reduction less than an independent pilot or double hull barge construction.

Buzzards Bay Conditional Escort Tug Workgroup Meeting: In August 2013, a group of sixteen industry representatives, regulatory officials, pilots, and environmental organizations met to explore the range of views on the potential conditions for tug escort requirements for double hull barges. The general consensus was that the Coast Guard should adopt the Massachusetts requirement for escort tugs for double hull vessels all the time rather than requiring an escort under certain conditions. Participants stated that the cost of mandatory escort tugs to Massachusetts residents is minimal and that citizens have demonstrated their willingness to pay for escort tugs.

Transportation Research Board Peer Review: In October 2013, following a request by MassDEP, the Transportation Research Board (TRB) of the National Academies conducted a peer review of the DHS Risk Assessment. The TRB found that the ranking of the risk mitigation options in the DHS Risk Assessment was not justified and could be reversed with slightly different and more defensible methods or assumptions. The TRB report closed by stating: “Policy decision should not be based on the DHS Technical Risk Assessment.”

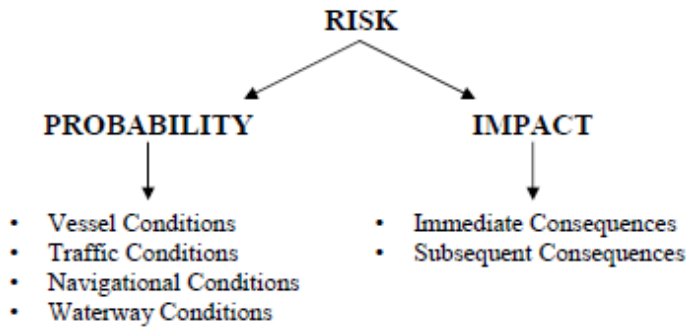
PAWSA WORKSHOP OBJECTIVES and PROCESS

The following pages describe the Waterway Risk Model depicted here:

Waterway Risk Model					
Vessel Conditions	**Traffic Conditions**	**Navigational Conditions**	**Waterway Conditions**	**Immediate Consequences**	**Subsequent Consequences**
Deep Draft Vessel Quality	Volume of Commercial Traffic	Winds	Visibility Impediments	Personnel Injuries	Health and Safety
Shallow Draft Vessel Quality	Volume of Small Craft Traffic	Water Movement	Dimensions	Petroleum Discharge	Environmental
Commercial Fishing Vessel Quality	Traffic Mix	Visibility Restrictions	Bottom Type	Hazardous Materials Release	Aquatic Resources
Small Craft Quality	Congestion	Obstructions	Configuration	Mobility	Economic

Waterway Risk Model Explanation

Risk is defined as the probability of an unwanted event TIMES the impact of that event. The 1997 National Dialogue Group developed an initial list of risk categories and factors that relate both to the causes or probability of marine accidents AND to the consequences or impact of those events. That list, which has been modified over time, was made into a Waterway Risk Model. The figure shown below provides a basic overview of the waterway risk model categories as they relate to the risk equation. The six risk categories, and their respective risk factors are listed and defined on the following pages.



Vessel Conditions – the quality of vessels and their crews that operate on a waterway; each waterway has what are considered to be high risk vessels, such as old vessels, vessels with poor safety records, vessels registered in certain foreign countries, vessels belonging to financially strapped owners, vessels with inexperienced crews / operators, etc. When assessing risk, the following items should be considered (as appropriate) for each risk factor: Maintenance, age, flag, class society, ownership, inspection record, casualty history, language barriers, fatigue related issues, and local area knowledge.

- *Deep Draft Vessel Quality* – the quality of the deep draft vessel itself and the proficiency and quality of the crew. Deep draft vessels are those large, ocean-going vessels, often in international trade, that usually are constrained by their draft to use dredged channels where such channels exist. Deep draft vessels include such things as: oil tankers, container ships, break bulk cargo ships, and cruise liners.

- *Shallow Draft Vessel Quality* – the quality of the shallow draft vessel itself and the proficiency and quality of the crew. Shallow draft vessels include all other commercial craft EXCEPT commercial fishing vessels. Examples include tugs / towboats, offshore supply vessels, charter fishing boats, and small passenger vessels (inspected under 46 CFR Subchapters T and K) such as dinner cruises and ferries.

- *Commercial Fishing Vessel Quality* – the quality of the commercial fishing vessel itself and the proficiency and quality of the crew. These vessels are included because they are not required to undergo annual vessel inspections nor are the crewmembers required to hold USCG licenses; therefore, there may be a greater potential for increased incidents involving commercial fishing vessels.

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- *Small Craft Quality* – the quality of the small craft vessel itself and the proficiency and operating knowledge of the individuals who operate them. Small craft include all manner of boats used for noncommercial purposes (i.e., pleasure craft or craft used by indigenous people for transportation or subsistence fishing). They can be powered by an engine, the wind, or human exertion. Examples include yachts, personal watercraft (a.k.a., jet skis), and kayaks. Besides local knowledge, understanding of the rules of the road and inebriation also should be considered for this risk factor.

Traffic Conditions – the number of vessels that use a waterway and their interactions. Volume equals the absolute numbers on a waterway.

- *Volume of Commercial Traffic* – the amount of commercial vessel traffic using the waterway (i.e., the more vessels there are on the water, the more likely that there will be a marine casualty). Deep draft and shallow draft commercial vessels as well as commercial fishing vessels are included in this risk factor. Shoreside infrastructure is also addressed in this risk factor (i.e., can it handle the volume of commercial traffic within the waterway).

- *Volume of Small Craft Traffic* – the amount of noncommercial vessel traffic using the waterway. The volume may vary depending on the time of day, the day of the week, the season of the year, or during a major marine event.

- *Traffic Mix* – the interaction between vessels or boats of different sizes using the same waterway and their maneuvering characteristics. Conflicts occur as risk increases with each type of vessel's different maneuvering characteristics and actions that are often unpredictable (e.g. commercial mariners / recreational mariners using deep draft vessels / shallow draft vessels within the same waterway).

- *Congestion* – the ability of the waterway to handle the volume / density of traffic. Risk increases when a large number of vessels uses a small geographic area for an extended period or time. Risk also increases substantially when you get a larger than normal number of vessels together for a short time (e.g., fishing tournament or short season commercial fishery).

Navigational Conditions – the environmental conditions that vessels must deal with in a waterway relating to wind, currents, and weather.

- *Winds* – the difficulty in maneuvering vessels resulting from increased and/or unpredictable winds, particularly if the wind is from abeam.

- *Water Movement* – the difficulty in maneuvering vessels caused by water movement (river / tidal currents) flow and speed, often affected by seasonal variations and sustained winds. Tide rips and whirlpools can be created by strong currents and affect the maneuverability of smaller vessels. The frequency of occurrence and the location of the strongest currents in the waterway are critical considerations (e.g., if current speed can exceed vessel speed, timing is critical when transiting the area).

- *Visibility Restrictions* – the natural conditions that may prevent a mariner from seeing other vessels, aids to navigation, or landmarks, such as fog, severe rain squalls, etc.

- *Obstructions* – floating objects in the water that impede safe navigation and/or damage a vessel, such as ice, debris, fishing nets, etc.

Waterway Conditions – the physical properties of the waterway that affects vessel maneuverability.

- *Visibility Impediments* – the man-made objects (e.g., moored ships, condominiums, background lighting) or geographic formations (e.g., headlands, islands) that prevent a mariner from seeing aids to navigation or other vessels.

- *Dimensions* – the room available for two vessels to pass each other within the waterway. How big is the waterway compared to the vessels using it? In some areas, one-way traffic results from extremely narrow channels.

- *Bottom Type* – the material on the waterway bottom or just outside the channel, such as hard rock, mud, coral, etc. How much damage occurs to a vessel if it runs aground?

- *Configuration* – the arrangement of a waterway including elements such as waterway bends, multiple / converging channels, and perpendicular traffic flow.

Immediate Consequences – the instantaneous impacts of a vessel casualty (i.e., what happens right after a collision, allision, or grounding?). How well is the local community prepared to handle the immediate consequences resulting from a vessel casualty?

- *Personnel Injuries* – the maximum number of expected casualties. People can be injured, killed, or need to be rescued—the more people on the water, the more rescue personnel / efforts needed.

- *Petroleum Discharge* – the largest petroleum spill in the most probably worst-case scenario—the more cargo there is, the higher the risk to waterway safety, the more response personnel needed.

- *Hazardous Materials Release* – the largest chemical or hazardous material spill in the most probably worst-case scenario—the more cargo there is, the higher the risk to waterway safety and the more response personnel / efforts needed. It is necessary to differentiate between products shipped in bulk and those shipped in containers because containers provides a high degree of protection to the cargo such that a large, instantaneous release is far less likely to occur; therefore, the potential consequences will be far lower.

- *Mobility* – the infrastructure that is critical to the Marine Transportation System within the waterway (i.e., the significant structures upon which moving people and cargo through the marine transportation system depend). The waterway can be blocked and the shoreside Marine Transportation System can be disrupted, ultimately causing greater problems moving cargo through a port—both on the water and ashore.

Subsequent Consequences – the longer-term effects of vessel casualties that are felt hours, days, months, and even years afterwards, such as shoreside facility shut-downs, loss of employment, destruction of fishing areas, decrease or extinction of species, degradation of subsistence living uses, and contamination of drinking or cooling water supplies.

- *Health and Safety* – the potential consequences to the community that lives or works on or near the waterway. The more people who live or work in close proximity to a waterway, the greater the risk.

- *Environmental* – the risks to wetlands and endangered species and how sensitive people are to the quality of their environment. The more sensitive, the more people will expect in terms of both preparedness and response effectiveness for any marine accident that threatens environmental quality.

- *Aquatic Resources* – water dwelling life forms harvested for commercial or recreational reasons. Timing of a marine casualty could affect how serious the consequences would be (i.e., some species are only in the waterway at certain times of the year).

- *Economic* – the extent of the impact if a particular waterway is closed for some period of time. Most waterway communities are dependent on unrestrained use of waterways for their economic well-being. For some waterways, the economic impacts would only be felt by those who directly use that waterway for their livelihoods. But for other waterways those economic impacts could have national repercussions.

Risk Factor Mitigations

Vessel Conditions

Deep Draft Vessel Quality – Refers to the proficiency of the crew, compliance of the vessel with all regulatory requirements, and safety issues relating to maintenance, inspection record, age, casualty history, maneuverability and handling, flag, class society, and owner.

- Port State Control
- Pilotage area extension
- Tug escort
- Notice of Arrival reports
- Safety zone around vessel
- Inspections
- Refuse entry
- Extra bridge watch
- Demonstrated experience or simulator training

Shallow Draft Vessel Quality – Refers to the proficiency of the crew, compliance with any regulatory requirements, and safety issues relating to maintenance, age, casualty history, owner, crew fatigue, and English language communications problems.

- Special VTS attention
- Training
- Extra bridge watch
- Inspections
- Demonstrated experience or simulator training

Commercial Fishing Vessel Quality – Refers to the ability of the crew to operate and maintain their vessel to expected safety standards.

- Licensing
- Mandatory inspections
- Voluntary inspections
- Special VTS attention
- Training
- Extra bridge watch
- Stricter consequences for violations

Small Craft Quality – Refers to the ability of the operator to operate safely and comply with regulatory requirements pertaining to the navigation of the vessel, including local knowledge and rules of the road.

- Voluntary training
- Mandatory education
- Licensing
- Enforcement
- Stricter consequences for violations

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Traffic Conditions

Volume of Commercial Traffic – Refers to all commercial vessels including, but not limited to, ocean-going cargo ships, passenger ships, and oil rigs, tugs and barges, inland craft, and commercial fishing vessels.

- Dredging
- High water entry restrictions
- Underkeel clearance
- Artificial islands around bridges and structures
- Tug assistance
- Tide level monitoring
- Extra pilot
- Restrict other movements
- Patrol / escort vessel
- Aids - leading lights / range lights
- Route restrictions
- Laser range lights
- Precise positioning
- Quality hydrography
- Speed restrictions
- VTS
- Mandatory AIS

Volume of Small Craft Traffic – Based upon use of the vessel, not size limited.

- Training
- Education
- Licensing
- Special designated areas
- Propulsion requirements
- Speed limitations
- Restricted routes
- Restrictions for races or regattas
- Navigation / safety equipment

Traffic Mix – Refers to the mix of vessel types that interact in a fairway.

- Ship routing
- Safety Zone around vessel (e.g., LNG / LPG)
- Restrictions based upon cargo route
- Speed limitations
- VTS
- Day / night rules
- Additional aids
- Restrictions based upon route / operating hours / speed
- Prioritizing movements
- Queuing / slotting
- High Speed Craft Code
- Regulated Navigational Areas

Congestion – Refers to the number of vessels relative to the geographical area and/or time.

- Ship routing
- Waiting anchorages
- Dredging and widening
- Movement restrictions / slotting VTS
- Prioritizing movements
- Restrict access to waterway
- Speed limitations
- Ship domain
- Prohibit certain activities (e.g., fishing, recreational)

Navigational Conditions

Winds – Refers to wind generated conditions that may affect the ability of a vessel to safely maneuver in a predictable manner.

- Restrict movements
- Close port (or section of)
- Tug assistance
- Wind screen
- Special anchorage or mooring rules
- Remote wind sensors
- Length restrictions
- VTS monitoring of anchorages / berths
- Temporary anchorage areas
- Draft restrictions
- Monitor critical aids to navigation
- Port / fairway closure

Water Movement – Refers to conditions generated by tides or river current that may affect the ability of a vessel to safely maneuver in a predictable manner.

- Real time monitoring & predictions
- Tide gauge
- Propulsion requirements
- Underkeel clearance
- Limit meeting / passing / overtaking areas
- Minimum speed requirements
- Movement restrictions based upon tidal window
- Air draft requirements
- Information on charts

Visibility Restrictions – Refers to conditions due to fog, rain, sleet, snow, smoke, etc., that limit a vessel's ability to see aids to navigation, or other vessels or landmarks.

- VTS radar
- Electronic aids (e.g., RACONS)
- DGPS
- AIS
- Controlled movements based upon vessel type
- Special anchorage areas
- Variable pilotage embarkation points
- Remote sensors
- Security broadcasts if no VTS / Calling-in points
- Prioritized movements
- Port / fairway closures

Obstructions – Refers to floating items that could damage a vessel, such as ice, logs, deadheads, containers, etc.

- Notice to Shipping
- Clean-up vessels
- Debris tolerant buoys and beacons
- Ice detection
- Predict / report ice and snow conditions
- Weather routing
- Ice breaker assistance
- Restrictions based upon construction
- Ice pilots
- Convoys
- Ice buoys
- Temporary alteration of routing
- Propulsion requirements

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Waterway Conditions

Visibility Impediments – Refers to conditions caused by structures, background lighting, or vegetation that obstruct visibility.

- Reduce background lighting and/or color
- Shielded security lighting on berths
- Retransmit VTS video
- Enhanced aids (e.g., light pipes, laser range lights)
- Mandatory bridge-to-bridge communications
- AIS
- Restrictions on new developments

Dimensions – Refers to the extent to which meeting and overtaking vessels have to make passing arrangements, and includes limits on their ability to maneuver. The extreme case is one-way traffic, and includes bridges and locks.

- One-way traffic
- VTS
- Restrictions on meeting and overtaking areas
- Size restrictions
- Traffic control signals
- Speed restrictions (minimum and maximum)
- Restrictions based upon vessel type (maneuverability)
- Pilots
- Slotting
- Convoy
- Dredging and widening
- Channel design and marking
- Fendering and artificial islands
- Different aids (range lights)
- Tugs
- Queuing
- Monitoring aids

Bottom Type – Refers to what a vessel will hit if the vessel runs aground.

- Underkeel clearance
- Measure / predict tide
- Prohibited anchorage areas (regarding pipes and cables)
- Hull protection and configuration
- Precision positioning
- Up to date surveys
- Protected areas (e.g., coral areas)
- Dredging
- Speed limitations
- Notes on charts / ECDIS
- Dredging for advertised minimum depth

Configuration – Refers to the number of intersections, bends, obstructions, and crossing traffic.

- Ship routing measures
- VTS
- Regulated Navigation Areas
- Prioritize movements
- Special local rules
- Location of artificial structures
- Additional aids
- AIS
- ECDIS
- VHF sectors
- Tug assistance
- Pilotage
- Bridge-to-bridge reporting points
- Enforcement of navigation rules
- Channel realignment
- Improved facility location
- One-way routes

Immediate Consequences

Personnel Injuries – Refers to the maximum number of expected casualties in the most probable worst case scenario.

- More frequent mass casualty drills
- Coordination between agencies
- Waterfront evacuation plans / drills

Petroleum Discharge – Refers to the largest petroleum spill in the most probable worst case scenario.

- Require double hulls
- Tug escort
- Drills
- Response capabilities / equipment
- Response training
- Container requirements

Hazardous Materials Release – Refers to largest hazardous material spill in the most probable worst case scenario.

- Require double hulls
- Tug escort
- Drills
- Response capabilities / equipment
- Response training
- Container requirements

Mobility – Refers to infrastructure that is critical to the Marine Transportation System.

- Tug escort
- Increase inventory / surge stocking levels
- Redundant systems
- Dolphins / fender / structure protection

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Subsequent Consequences

Health and Safety – Refers to the potential consequences to the community that lives on or near the waterway.

- Evacuation plans
- Education / awareness
- Predictive models
- Equipment suitable to probable accidents
- Zoning requirements
- Evacuation drills
- Responder training

Environmental – Refers to both the risks to wetlands and endangered species and how sensitive people are to the quality of their environment.

- Predictive models
- Response training
- Response equipment
- Education

Aquatic Resources – Refers to water dwelling life forms harvested for commercial reasons.

- Season limits
- Location limits
- Restocking ability
- Contamination checks

Economic – Refers to the extent of the impact if a particular waterway is closed for some period of time.

- Inventory / surge capacity
- Alternate sources
- Salvage equipment
- Construction equipment

This material provides an abbreviated guide to terminology that will probably be used during a Ports and Waterways Safety Assessment (PAWSA). The listing is not comprehensive, nor does it identify all laws, rules, and other requirements governing vessel operation.

Notes: Reference material appears in *italics*. "CFR" is "Code of Federal Regulations"

AID TO NAVIGATION (ATON): A device, external to a vessel, designed to assist in determination of position of the vessel, or of a safe course, or to warn of danger. The most common types of aids to navigation are:

- Fixed aids, such as lighthouses, ranges, and beacons, which are permanently located in known geographic positions
- Floating aids, or buoys, anchored in known geographic positions
- Radionavigation aids, such as GPS, DGPS, Loran, radio beacons, etc., which transmit signals by which navigators may determine their positions

ALLISION: Contact between a vessel and a fixed object such as a pier or a bridge.

AUTOMATIC IDENTIFICATION SYSTEM (AIS): AIS uses radio transponders permanently installed or carried on board vessels to broadcast important data such as vessel identification, GPS/DGPS position, course, speed, navigational status, dimensions, or cargo. Combined with a shipboard display capability, AIS presents critical navigation and vessel traffic information to navigators without the requirement for voice communications.

BEST PRACTICES: A high-performance way of achieving business objectives, which solves problems, creates opportunities, and improves business results. An example of this is the American Waterways Operators Responsible Carrier Program. It is a voluntary program aimed at improving marine safety and environmental protection through the adoption of standards that exceed government regulations.

CAPTAIN OF THE PORT (COTP): (f) The Captain of the Port is in command of a Captain of the Port Zone and his office may be referred to as a Captain of the Port Office. (See Sec. 1.01-30 of this subchapter.) (g) Each Captain of the Port Zone and each Marine Inspection Zone described in this part also includes the United States territorial seas adjacent to the described area or zone for the purpose of enforcing or acting pursuant to a statute effective in the United States territorial seas. Each Captain of the Port Zone and each Marine Inspection Zone described in this part also includes the contiguous zone adjacent to the area or zone for the purpose of enforcing or acting pursuant to a statute effective in the contiguous zone. (See Sec. 2.28.) Each Captain of the Port Zone and each Marine Inspection Zone described in this part also includes the exclusive economic zone (EEZ) adjacent to the area for the purpose of enforcing or acting pursuant to a statute effective in the EEZ.

33 CFR 3.01-1

COLLISION REGULATIONS (COLREGS): 1972 International Regulations for Preventing Collisions at Sea, as amended. The COLREGS were adopted by the Congress as the International Rules Act of 1977. The COLREGS are applicable on waters outside of established navigational lines of demarcation (COLREGS Demarcation Lines).

COLREGS DEMARCATION LINE: The geographic boundary between those waters to which the COLREGS apply and those subject to the Inland Navigation Rules. The boundaries are set forth in the Code of Federal Regulations and appear in the Coast Pilot as well as on officially published nautical charts.

33 CFR 80

DIFFERENTIAL GPS (DGPS): The maritime DGPS system, operated by the Coast Guard, enhances the positional accuracy achievable using GPS by broadcasting pseudo-range corrections using radiobeacons. The system covers the coastal waters of the continental U.S., the Great Lakes, the Mississippi River Basin, and portions of Alaska and Hawaii. Use of DGPS provides navigational accuracy of better than 10 meters.

1996 Federal Radio navigation Plan

FAIRWAY ANCHORAGE: An anchorage area contiguous to and associated with a fairway, in which fixed structures may be permitted within certain spacing limitations.

33 CFR 166, Subpart A

GLOBAL POSITIONING SYSTEM (GPS): GPS is a space-based radio positioning, navigation and time-transfer system. It is composed of 24 satellites in orbit about the globe and, in combination with an onboard receiver, is capable of providing near-instantaneous position fixes to an accuracy of 100 meters anywhere in the world. The system is operated by the U.S. Department of Defense.

IALA Aids to Navigation Guide
1996 Federal Radionavigation Plan

INLAND NAVIGATION RULES: Rules enacted by the Inland Navigation Rules Act of 1980. Similar to the COLREGS, they are applicable only to those waters of the United States inside COLREGS Demarcation Lines.

LORAN-C: Loran-C was originally developed to provide radionavigation service for U.S. coastal waters and was later expanded to include complete coverage of the continental U.S. as well as most of Alaska. Twenty-four U.S. Loran-C stations work in partnership with Canadian and Russian stations to provide coverage in Canadian waters and in the Bering Sea. Loran-C provides better than 0.25 nautical mile absolute accuracy for suitably equipped users within the published areas.

MARINE TRANSPORTATION SYSTEM (MTS): The U.S. Marine Transportation System (MTS) consists of waterways, ports, and their intermodal connections, vessels, vehicles, and system users. As the world's leading maritime and trading nation, the United States relies on an efficient and effective MTS to maintain its role as a global power. The MTS provides American businesses with competitive access to suppliers and markets in an increasingly global economy.

NARROW CHANNELS / RULE 9: Rule 9 of the International and Inland Navigation Rules states, in regards to impeding traffic within a narrow channel or fairway,

(b) A vessel of less than 20 meters in length or a sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway.

(c) A vessel engaged in fishing shall not impede the passage of any other vessel navigating within a narrow channel or fairway.

(d) A vessel shall not cross a narrow passage or fairway if such crossing impedes the passage of a vessel which can safely navigate only within such channel or fairway. The latter vessel may use the sound signal prescribed in Rule 34(d) if in doubt as to the intention of the crossing vessel.

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NAVIGATION REGULATIONS: A body of specific operating rules applicable to a designated body of water imposed by the federal authority exercising jurisdiction over that waterway. These are commonly issued by the U.S. Army Corps of Engineers for canals and similar waterways.

33 CFR 207

NAVIGATION SAFETY REGULATIONS: A body of operating rules contained in the Code of Federal Regulations which are applicable to all vessels of 1,600 or more gross tons operating in the navigable waters of the United States, except for the St. Lawrence Seaway. Certain exceptions are provided for foreign vessels.

33 CFR 164

NOTICE TO MARINERS, LOCAL (LNM) AND BROADCAST (BNM): The LNM is the primary means for disseminating information concerning aids to navigation, hazards to navigation, and other items of marine information of interest to mariners on the waters of the United States, it's territories, and possessions. These notices are essential to all navigators for the purpose of keeping their charts. Light Lists, Coast Pilots, and other nautical publications up-to-date. These notices are published weekly. They may be obtained free of charge, by making application to the appropriate Coast Guard District or the LNM's are available on the World Wide Web.

BNMs are not intended to be the source of chart and light list corrections, but rather to inform the mariner of the latest navigational information. The information contained in Broadcast Notice to Mariners that remains current will be included in the next published Local Notice to Mariners. Broadcasting is confined to information concerning new establishment, discontinuance, changes, or deficiencies in Aids to Navigation which shipping interests should receive without delay. Important information, such as marine obstructions, temporary changes in bridge clearance or operation of drawbridges, dredging operations, shoaling, channel conditions, military exercises, and hazards to navigation on inland or coastal waters will be broadcast if considered necessary for the safety of navigation.

PORT ACCESS ROUTE STUDY (PARS): A process conducted by the Coast Guard with the participation of Federal, State, and local private / public stakeholders, undertaken to study the potential traffic density and the need for safe access routes for vessels in any area for which fairways or traffic separation schemes (TSS) are proposed or which may otherwise be considered.

33 U.S.C. 1223(c)

PHYSICAL OCEANOGRAPHIC REAL TIME SYSTEM (PORTS): A program of the U.S. National Ocean Service that supports safe and cost-efficient navigation by providing ship masters and pilots with accurate real-time information required to avoid groundings and collisions. PORTS includes centralized data acquisition and dissemination systems that provide real-time water levels, currents, and other oceanographic and meteorological data from bays and harbors to the maritime user community in a variety of user friendly formats, including telephone voice response and Internet.

PILOTAGE: As used in the risk assessment process, the assistance and advice provided to mariners by licensed pilots.

REGULATED NAVIGATION AREA (RNA): A water area within a defined boundary for which regulations for vessels navigating have been established.

The regulations may include, among others:

- Specifying times of entry, movement, or departure to, from, within, or through ports, harbors, or other waters
- Establishing vessel size, speed, draft limitations, and operating conditions
- Restricting vessel operations to vessels which have particular operating characteristics or capabilities which are considered necessary for safe operations under existing circumstances

33 CFR 165, Subpart B

SAFETY ZONE: A water area, shore area, or water and shore area to which, for safety or environmental purposes, access is limited to authorized persons, vehicles, or vessels. It may be stationary and described by fixed limits or it may be described as a zone around a vessel in motion.

33 CFR 165, Subpart C

SECURITY ZONE: An area of land, water, or land and water which is so designated by the Captain of the Port or USCG District Commander for such time as is necessary to prevent damage or injury to any vessel or waterfront facility, to safeguard ports, harbors, territories, or waters of the United States or to secure the observance of the rights and obligations of the United States.

33 CFR 165, Subpart D

SHIPPING SAFETY FAIRWAYS: A lane or corridor in which no artificial island or fixed structure, whether temporary or permanent, is permitted.

33 CFR 166, Subpart A

STWC - INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR SEAFARERS: Establishes standards of competence for the performance of tasks and requires assessments as to whether an individual meets each competence level. In addition, the 1995 Amendments establish minimum rest periods for watchkeeping personnel, and require that all mariners receive vessel familiarity and basic safety training. The Convention is based in part on the principle that proper training, coupled with effective application of quality management principles and use of proper procedures, will promote shipboard practices which prevent human error.

TRAFFIC SEPARATION SCHEME (TSS) / RULE 10

A TSS is a routing measure aimed at the separation of opposing streams of traffic by appropriate means and by the establishment of traffic lanes. Establishment of a TSS requires approval of the International Maritime Organization and Rule 10 of the COLREGS and Inland and Inland Navigation Rules applies to vessels operating in or near a TSS.

33 CFR 167

VESSEL MOVEMENT REPORTING SYSTEM

Vessel Movement Reporting System (VMRS) is a system used to manage and track vessel movements within a VTS area. This is accomplished by a vessel providing information under established procedures as set forth in this part, or as directed by the VTS.

Rule 10 of the International and Inland Navigation Rules states, in regards to vessels under 20 meters and sailing vessels:

(j) A vessel of less than 20 meters in length or a sailing vessel shall not impede the safe passage of a power-driven vessel following a traffic lane.

VESSEL TRAFFIC INFORMATION SERVICE (VTIS)

A VTIS is a system operated by a non-federal public or private entity that gathers and provides information only to vessels operating within a designated area. A VTIS does not have authority to direct movement and operates without Captain of the Port authority.

VESSEL TRAFFIC MANAGEMENT (VTM)

VTM is that portion of waterways management dealing with the movement of vessels in a port or waterway.

VESSEL TRAFFIC SERVICE (VTS)

A VTS is a service implemented by a Competent Authority, designed to improve the safety and efficiency of vessel traffic and to protect the environment. The service should have the capability to interact with the traffic and to respond to traffic situations developing in the VTS area.

In the United States, the Coast Guard serves as Competent Authority and operates VTS in a number of ports and waterways. A VTS has the authority to issue directions to control and supervise vessel movement within its area of responsibility.

International Maritime Organization, "Guidelines for Vessel Traffic Services", MSC\67\22A2
33 CFR 161

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WATERWAY ANALYSIS AND MANAGEMENT SYSTEM (WAMS)
The Coast Guard conducts a Waterways Analysis and Management System review of each district waterway on a five-year cycle. WAMS comprehensively analyzes the quality of each waterway's ATON system. During this process, the Coast Guard contacts waterway users for their input and feedback.

WATERWAYS MANAGEMENT (WM or WWM)
The collective efforts of public and private resources to ensure infrastructure, systems, and services of our ports and waterways meet the demand for a safe, secure, efficient, accessible, economically viable and environmentally sound component of the U.S. National Transportation System.

WATERWAY OPERATING RULES
The body of rules and accepted practices governing the movement of vessels in a port or waterway. In some cases accepted practices have not been published or approved by any authoritative body.

PAWSA Workshop Specific Terms

PAWSA RISK CATEGORIES

1. **Vessel Conditions** – the quality of vessels and their crews that operate on a waterway.
2. **Traffic Conditions** – the number of vessels that use a waterway and their interactions.
3. **Navigational Conditions** – the environmental conditions that vessels must deal with in a waterway relating to wind, currents, and weather.
4. **Waterway Conditions** – the physical properties of the waterway that affect how easy it is to maneuver a vessel.
5. **Immediate Consequences** – the immediate impacts of a waterway casualty: people can be injured or killed, petroleum and hazardous materials can be spilled and require response resources, and the marine transportation system can be disrupted.
6. **Subsequent Consequences** – the subsequent effects of waterway casualties that are felt hours, days, months, and even years afterwards, such as shore side facility shut-downs, loss of employment, destruction of fishing areas, decrease or extinction of species, degradation of subsistence living uses, and contamination of drinking or cooling water supplies.

QUANTITATIVE ASSESSMENTS

Book 2: Team Expertise Cross-Assessment is used to capture the expertise of each team relative to the other teams in the workshop. The results from Book 1 are used to weight each team's inputs for all other books.

Book 1: Baseline Risk Levels is used by the participants to determine where their waterway falls on the risk scales. What results is the risk level for each factor, not taking into account any actions already implemented to reduce risk in the waterway.

Book 3: Mitigation Effectiveness is used for two purposes. After the participants describe the risk mitigation strategies that already exist to help reduce the risk level for their waterway, Book 3 is used to evaluate the effectiveness of those strategies in reducing the risk level for each factor in the model. The results of that evaluation are the present risk levels, taking into account those existing mitigations. Second, they decide whether the risk mitigation strategies already in place adequately balance the resulting risk level…or not. If, for any given risk factor, there is strong consensus among the participants that existing mitigations DO adequately deal with those risks, then that risk factor is dropped from further discussion.

Book 4: Additional Interventions provides the participants an opportunity to offer ideas about specific risk mitigation actions that should be taken and estimate how effective those actions would be in further reducing risk levels. Participants first discuss what else should be done ONLY for those risk factors where the Book 3 results show that risk levels are NOT adequately balanced with existing mitigations. Following the discussion, participants decide which ideas have the most promise for each risk factor that was discussed and what mitigation category the ideas relate to. They write a short description of the action needed, that is, the idea with the most promise, on the line next to the appropriate category, and then evaluate how much risk reduction would result if that idea was implemented.

RISK MITIGATION CATEGORIES

Coordination / Planning - Improve long-range and/or contingency planning and better coordinate activities / improve dialogue between waterway stakeholders

Voluntary Training - Establish / use voluntary programs (Coast Guard Auxiliary, Power Squadron, other state / local programs) to educate waterway users in topics related to waterway safety (Rules of the Road, ship / boat handling, etc.)

Rules & Procedures - Establish / refine rules, regulations, policies, or procedures (navigation rules, pilot rules, standard operating procedures, licensing, required training and education, Regulated Navigation Areas, etc.)

Enforcement - More actively enforce existing rules / policies (navigation rules, vessel inspection regulations, standards of care, etc.)

Nav / Hydro Info - Improve navigation and hydrographic information (the Physical Oceanographic Real-Time System (PORTS), Broadcast Notices To Mariners, charts, coast pilots, Automatic Identification System (AIS), tides and current tables, etc.)

Radio Communications - Improve the ability to communicate bridge-to-bridge or ship-to-shore (radio reception coverage, signal strength, reduce interference & congestion, etc.)

Active Traffic Management - Establish / improve a Vessel Traffic Service (information, advice and control) or Vessel Traffic Information Service (information and advice only)

Waterway Changes - Widen / deepen / straighten the channel and/or improve the aids to navigation (buoys, ranges, lights, LORAN C, Differential Global Positioning System (DGPS), etc.)

Other Actions Risk - Mitigation measures that do NOT fall under any of the above intervention strategy categories

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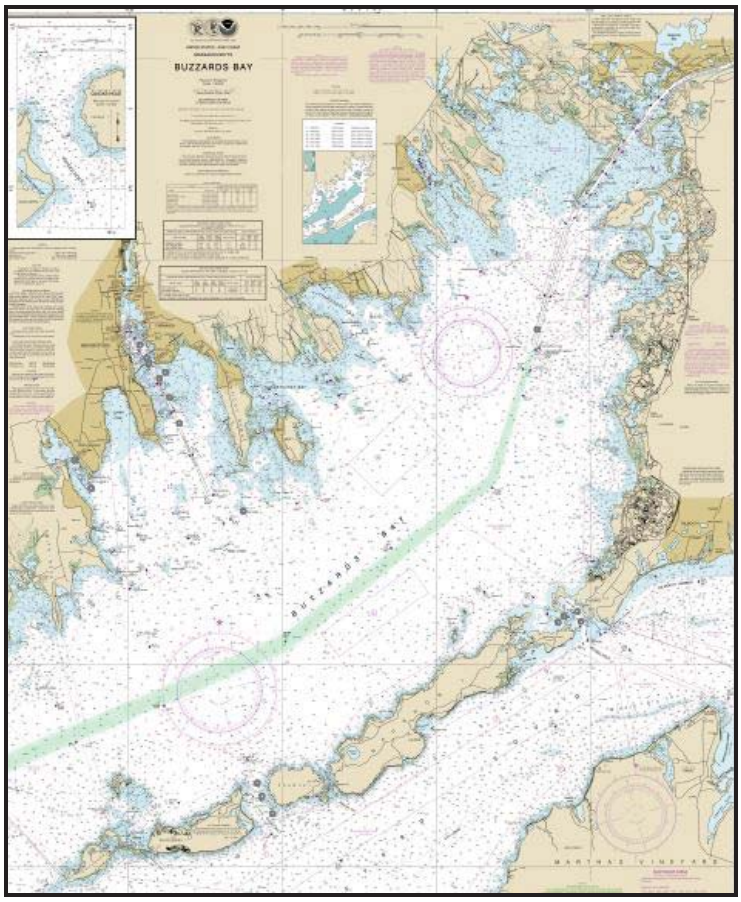
Ports and Waterways Safety Assessment

Workshop Report

Buzzards Bay, Massachusetts



United States Coast Guard
Marine Transportation Systems Directorate

Providing Navigation Safety Information for America's Waterways Users

USCG1862

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Background and Purpose

The United States Coast Guard (USCG), Marine Transportation Systems Directorate, is responsible for developing and implementing policies and procedures that facilitate commerce, improve safety and efficiency, and inspire dialogue with ports and waterway users with the goal of making waterways as safe, efficient, and commercially viable as possible.

Through the 1997 Coast Guard Appropriations Act, the Coast Guard was directed to establish a process to identify minimum user requirements for new Vessel Traffic Service (VTS) systems in consultation with local officials, waterway users and port authorities, and also to review private / public partnership opportunities in VTS operations. The Coast Guard convened a National Dialogue Group (NDG) comprised of maritime and waterway community stakeholders to identify the needs of waterway users with respect to Vessel Traffic Management (VTM) and VTS systems. The NDG was intended to provide the foundation for the development of an approach to VTM that would meet the shared government, industry, and public objective of ensuring the safety of vessel traffic in U.S. ports and waterways, in a technologically sound and cost effective way.

From the NDG came the development of the ***Ports and Waterways Safety Assessment (PAWSA) Waterway Risk Model,*** and the ***PAWSA workshop process***. PAWSA is a disciplined approach designed to identify major waterway safety hazards, estimate risk levels, evaluate potential mitigation measures, and set the stage for the implementation of selected risk reduction strategies. The process involves convening a select group of waterway users and stakeholders and facilitating a structured workshop agenda to meet the risk assessment objectives. A successful workshop requires the participation of professional waterway users with local expertise in navigation, waterway conditions, and port safety. In addition, stakeholders are included in the process to ensure that important environmental, public safety, and economic consequences are given appropriate attention as risk interventions are identified and evaluated.

The long-term goals of the PAWSA process are to:

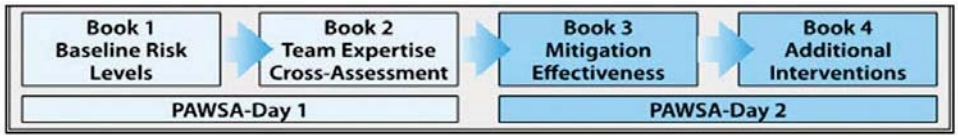
1) Provide input when planning for projects to improve the safety of navigation,
2) Further the Marine Transportation System (MTS) goals of improved coordination and cooperation between government and the private sector, and involving stakeholders in decisions affecting them,
3) Foster development and/or strengthen the roles of Harbor Safety Committees within each port, and
4) Support and reinforce the role of Coast Guard Sector Commanders/Captains of the Port (COTP) in promoting waterway and vessel traffic management activities within their geographic areas of responsibility.

59 ports/waterways have been assessed or reassessed using the PAWSA process. The risk assessment process represents a significant part of joint public-private sector planning for mitigating risk in waterways. When applied consistently and uniformly in a number of waterways, the process is expected to provide a basis for making best value decisions for risk mitigation investments, both on the local and national level. The goal is to find solutions that are cost effective and meet the needs of waterway users and stakeholders.

PAWSA Waterway Risk Model and Workshop process

The PAWSA Waterway Risk Model includes variables dealing with both the causes of waterway casualties and their consequences. In the Waterway Risk Model, risk is defined as a function of the probability of a casualty and its consequences. The diagram below shows the six general risk categories, and corresponding risk factors, that make up the Waterway Risk Model.

Waterway Risk Model					
Vessel Conditions	**Traffic Conditions**	**Navigational Conditions**	**Waterway Conditions**	**Immediate Consequences**	**Subsequent Consequences**
Deep Draft Vessel Quality	Volume of Commercial Traffic	Winds	Visibility Impediments	Personnel Injuries	Health and Safety
Shallow Draft Vessel Quality	Volume of Small Craft Traffic	Water Movement	Dimensions	Petroleum Discharge	Environmental
Commercial Fishing Vessel Quality	Traffic Mix	Visibility Restrictions	Bottom Type	Hazardous Materials Release	Aquatic Resources
Small Craft Quality	Congestion	Obstructions	Configuration	Mobility	Economic



- ***Vessel Conditions*** – The quality of vessels and their crews that operate on a waterway.
- ***Traffic Conditions*** – The number of vessels that use a waterway and how they interact with each other.
- ***Navigational Conditions*** – The environmental conditions that vessels must deal with in a waterway.
- ***Waterway Conditions –*** The physical properties of the waterway that affects vessel maneuverability.
- ***Immediate Consequences*** – The instantaneous impacts to the port as a result of a vessel casualty.
- ***Subsequent Consequences*** – The longer-term impacts felt days, months, and even years afterwards.

Workshop activities include a series of discussions about the port/waterway attributes and the vessels that use the waterway, followed by completion of work books to establish baseline risk levels, evaluate the effectiveness of existing risk mitigations, and identify additional risk intervention strategies to further reduce risk in the port / waterway. Work book 1 is used to numerically evaluate the baseline risk levels using pre-defined qualitative risk descriptions for pre-defined risk factors. Work book 2 is used to assess the expertise of participants with respect to the risk categories in the model. Those expertise assessments are used to weight inputs obtained during the other steps in the workshop process. Work book 3 is used to evaluate how effective the existing mitigation strategies are at reducing risks, and to determine if the risks are well balanced or not. For those risk factors where risk is judged to be not well balanced by existing mitigations, participants use work book 4 to identify additional risk intervention strategies and then evaluate how effective those new strategies could be at reducing risks.

Buzzards Bay PAWSA Workshop

A PAWSA workshop to assess navigation safety on Buzzards Bay was held in Wareham, Massachusetts on 7-8 February, 2018. The workshop was attended by 29 participants representing waterway users, stakeholders, environmental interest groups, and Federal, State and local regulatory authorities. The sponsor of the workshop was Coast Guard Sector Southeastern New England.

The purpose of the workshop was to bring waterway users, stakeholders and members of the Buzzards Bay maritime community together for collaborative discussions regarding the quality of vessels and their crews that operate on the waterway; the volume of commercial, non-commercial and recreational small craft vessel traffic using the waterway, navigational and waterway conditions that mariners encounter when transiting the assessment area, and the potential environmental impacts that could result from a marine casualty or incident on the waterway.

Over the two day workshop the participants discussed and then numerically evaluated each of the 24 risk factors in the PAWSA model. Baseline risk levels were first evaluated using pre-defined qualitative risk descriptions for each risk factor. Participants then discussed existing risk mitigation strategies, evaluated how effective those mitigation strategies were at reducing risk, and then determined if the risks were well balanced.

For the following 12 risk factors there was consensus (defined as 2/3 of the workshop participant teams being in agreement) that risks were well balanced by existing mitigations.

Risk Factor	Risk Level with Existing Mitigations
Bottom Type	8.2
Configuration	8.1
Visibility Impediments	6.7
Mobility	6.7
Dimensions	6.6
Personnel Injuries	5.9
Obstructions	5.7
Visibility Restrictions	5.6
Winds	5.3
Volume of Commercial Traffic	5.0
Shallow Draft Vessel Quality	5.0
Deep Draft Vessel Quality	3.0

For one risk factor (Congestion - 6.5) there was no consensus that this risk factor was well balanced or not balanced by existing mitigations.

For the remaining 11 risk factors there was *consensus that risks were NOT well balanced* by existing mitigations. For these risk factors the participants engaged in further discussions to identify additional risk mitigation strategies, and then evaluated how effective those new strategies could be at reducing risk. Due to workshop time constraints, only 8 of the 11 risk factors (that were not well balanced by existing mitigations) were evaluated using book 4.

The following shows the results of the book 4 evaluations:

Risk Factor	Risk Level with Existing Mitigations	Risk Level with Proposed Mitigations
Aquatic Resources	8.7	8.4
Environmental	8.4	8.1
Petroleum Discharge	8.6	7.4
Water Movement	7.6	7.3
Commercial Fishing Vessel Quality	8.5	7.3
Health and Safety	8.1	6.5
Economic	6.7	6.4
Hazardous Materials Release	6.0	5.6
Small Craft Quality	9.0	Not Evaluated
Traffic Mix	7.6	Not Evaluated
Volume of Small Craft Traffic	5.9	Not Evaluated

The results of the book 4 evaluations showed that the most chosen general risk mitigation strategies to further reduce risk were to improve long-range and/or contingency planning, better coordinate activities and improve dialogue between waterway users and stakeholders; improve Notice to Mariners, navigational charts, Coast Pilots, Light Lists, Automatic Identification System (AIS), tides and current tables, weather sensors, and weather broadcasting; and establish and/or refine rules, regulations, policies, and procedures including navigation rules, pilotage rules, standard operating procedures, crew member licensing, and required training and education.

The following shows the most chosen mitigation strategies for the eight risk factors evaluated.

Risk Factor	Mitigation Strategy
Aquatic Resources	Coordination and Planning
Environmental	Coordination and Planning
Petroleum Discharge	Navigation and Hydrographic Information
Water Movement	Navigation and Hydrographic Information
Commercial Fishing Vessel Quality	Rules and Procedures
Health and Safety	Coordination and Planning
Economic	Coordination and Planning
Hazardous Materials Release	Coordination and Planning

The results of the baseline risk levels, existing risk mitigations, additional risk intervention strategies, and a representative summary of participant comments and observations are outlined in this report. Nautical charts were displayed of the assessment area for reference and to annotate geographic locations associated with participant comments and observations; excerpts from the annotated charts are included as an appendix to this report.

The primary goal of a PAWSA workshop is to further the Marine Transportation System objective of improved coordination and cooperation between government and the private sector. A PAWSA workshop is also intended to involve stakeholders in decisions affecting them, and provide the Coast Guard and members of the waterway community with an effective tool to evaluate risk and work toward long term solutions tailored to local circumstances. In support of these goals, this report should be viewed as a starting point for continued dialogue within the Buzzards Bay maritime community.

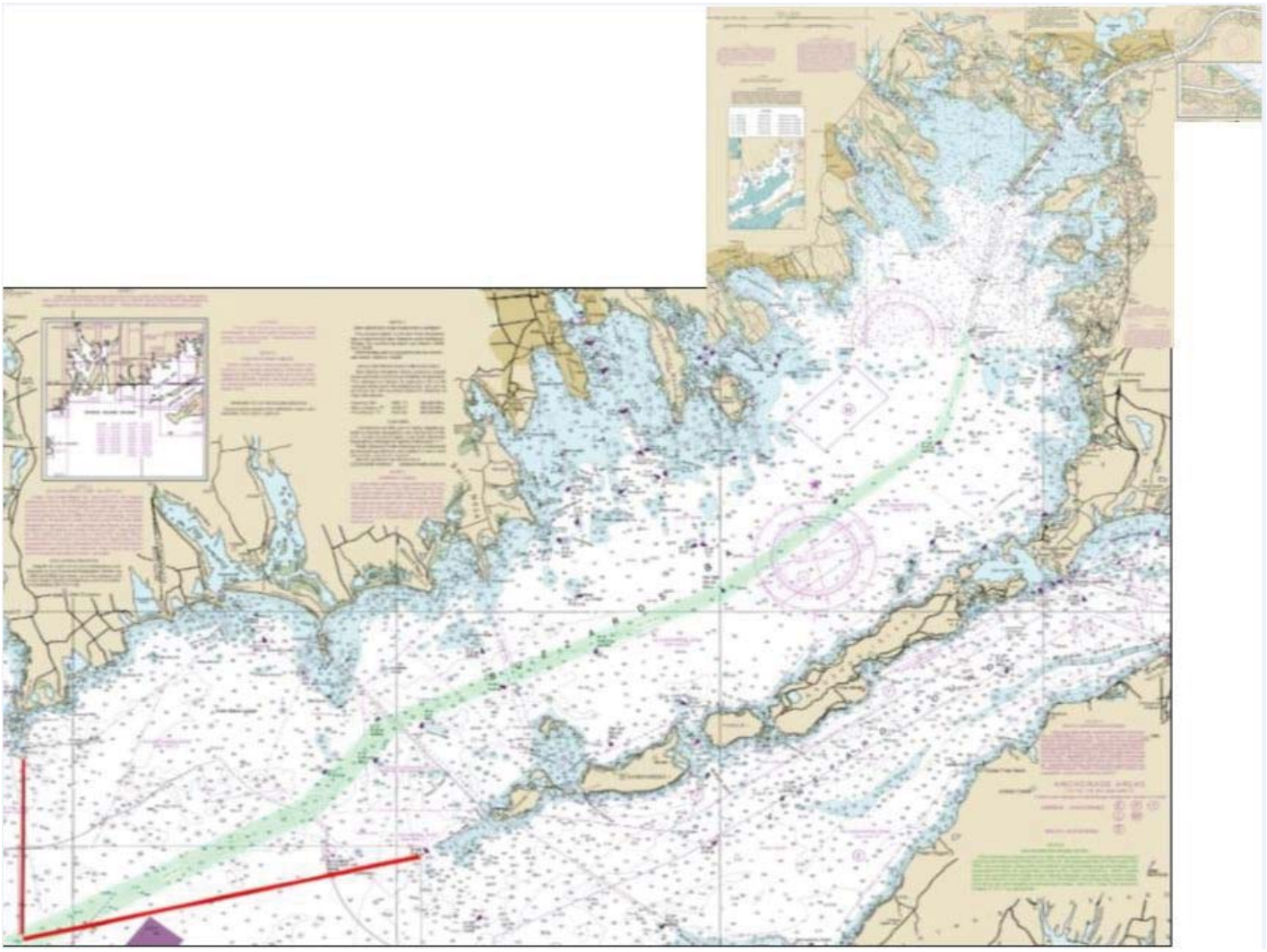
The Coast Guard will use this PAWSA report, together with other information, to determine whether, and to what extent, regulatory or other actions are needed to address navigation safety risk. Any other substantive rulemaking effort associated with Buzzards Bay will follow Coast Guard public notice and comment rulemaking procedures to allow for public participation in the process.

The United States Coast Guard, Marine Transportation Systems Directorate, extends a sincere appreciation to the workshop participants for their contributions to the Buzzards Bay PAWSA workshop. Their expertise was critical to the success of the workshop, and their recommendations will greatly assist the Coast Guard as it continues to work with Buzzards Bay stakeholders and the Commonwealth of Massachusetts to further improve safe and efficient navigation in Buzzards Bay.

Section 1: Buzzards Bay PAWSA - Assessment Area

The geographic bounds of the waterway assessment area included all waters bounded by a line from Sakonnet Point, Rhode Island southward to the north end of the Buzzards Bay traffic separation zone, to the southwestern tip of Cuttyhunk Island, Massachusetts thence through Buzzards Bay to the eastern entrance of the Cape Cod Canal. Woods Hole Passage and Quicks Hole were also included.

Nautical charts referenced and displayed were 13218, 13230 and 13236.



Section 2: Baseline Risk Levels

The first step in the Buzzards Bay PAWSA workshop was the completion of work book 1 to determine a baseline risk level value for each risk factor in the Waterway Risk Model. To establish the baseline risk levels, participants discussed each of the 24 applicable factors in the Waterway Risk Mode and selected a qualitative description for each risk factor that best described the conditions in the assessment area. These qualitative descriptions were converted to discrete values using numerical scales that were developed during earlier PAWSA workshops. What results is the risk level for each risk factor, not taking into account any actions already implemented to reduce risk in the waterway.

On those scales, 1.0 represents low risk (best case) and 9.0 represents high risk (worst case), with 5.0 being the mid-risk value. Risk values highlighted in red (values at or above 7.7) denote very high baseline risk levels; risk values highlighted in green (values at or below 2.3) denote very low baseline risk levels.

The table below shows the baseline risk level values for all risk factors as determined by the workshop participants.

Baseline Risk Levels

Vessel Conditions	Traffic Conditions	Navigational Conditions	Waterway Conditions	Immediate Consequences	Subsequent Consequences
Deep Draft Vessel Quality	Volume of Commercial Traffic	Winds	Visibility Impediments	Personnel Injuries	Health and Safety
2.8	5.0	4.5	7.3	6.5	9.0
Shallow Draft Vessel Quality	Volume of Small Craft Traffic	Water Movement	Dimensions	Petroleum Discharge	Environmental
4.8	5.8	7.4	6.7	8.8	8.4
Commercial Fishing Vessel Quality	Traffic Mix	Visibility Restrictions	Bottom Type	Hazardous Materials Release	Aquatic Resources
8.8	8.2	5.3	8.6	3.6	8.6
Small Craft Quality	Congestion	Obstructions	Configuration	Mobility	Economic
9.0	6.5	6.1	9.0	7.3	6.1

Section 3: Team Expertise Cross-assessment

The second step in the Buzzards Bay PAWSA workshop was the completion of a team expertise cross-assessment (book 2.) The team expertise cross-assessment was conducted early in the workshop process and was used to weigh the relative strengths of each team with respect to the six risk categories. The results of the team expertise cross-assessments were used to weight the inputs that each team provided in the other workbooks completed during the workshop.

After being presented with the concepts underlying the model, each participant team was asked to discuss (among themselves) how their background and experience aligns with the model. They then verbally presented their self-assessments to the other teams. These presentations gave all teams a sense of where everyone thought they were strong – or perhaps not so strong. After all teams had spoken, each team then evaluated whether they were in the top, middle, or lower third of all teams present with respect to knowledge and expertise in the six risk category areas.

The participants assessed their own and all the other participant teams' level of expertise for each of the six categories in the Waterway Risk Model.

The table below breaks down the participants' expertise for each risk category.

Team Expertise -- Distribution

Risk Category	Top 1/3	Mid 1/3	Lower 1/3
Vessel Conditions	33%	49%	19%
Traffic Conditions	22%	56%	21%
Navigational Conditions	46%	43%	11%
Waterway Conditions	51%	40%	8%
Immediate Consequences	46%	31%	23%
Subsequent Consequences	34%	30%	36%
All Categories Average	39%	42%	20%

Note: The table above breaks down the participants' expertise distribution for each risk category. The "ideal" split is an even distribution (33%) between the three expertise levels. Percentages highlighted in yellow indicate a value that is either 50% higher or 50% lower from the ideal (33%) distribution mix. Values at or above 50%, and values at or below 16%, fall into this category.

Section 4: Existing Risk Mitigations

The third step in the Buzzards Bay PAWSA workshop was for participants to evaluate the effectiveness of existing mitigation strategies in reducing the risk level for each risk factor. Book 3 is used for two purposes. After the participants describe the risk mitigation strategies that already exist to help reduce the risk level for their waterway, book 3 is used to evaluate the effectiveness of those strategies in reducing the risk level for each factor in the model. What results from that evaluation is the present risk level, taking into account those existing mitigations. Second, the participants decide whether the risk mitigation strategies already in place adequately balance the resulting risk level. If, for any given risk factor, there is consensus among the participants that existing mitigations do adequately deal with those risks, then that risk factor is dropped from further discussion.

For risk factors show in green there was consensus that risks were well balanced by existing mitigations.

For risk factors shown in red (Rising/No) there was consensus that risks were not balanced by existing mitigations.

For risk factors shown in yellow there was no consensus that risks were well balanced by existing mitigations.

Consensus is defined as 2/3 of the workshop participant teams in agreement.

Mitigation Effectiveness												
Vessel Conditions		Traffic Conditions		Navigational Conditions		Waterway Conditions		Immediate Consequences		Subsequent Consequences	
Deep Draft Vessel Quality		Volume of Commercial Traffic		Winds		Visibility Impediments		Personnel Injuries		Health and Safety	
2.8	3.0	5.0	5.0	4.5	5.3	7.3	6.7	6.5	5.9	9.0	8.1
Balanced		Balanced		Balanced		Balanced		Balanced		NO	
Shallow Draft Vessel Quality		Volume of Small Craft Traffic		Water Movement		Dimensions		Petroleum Discharge		Environmental	
4.8	5.0	5.8	5.9	7.4	7.6	6.7	6.6	8.8	8.6	8.4	8.7
Balanced		Rising		Rising		Balanced		NO		Rising	
Commercial Fishing Vessel Quality		Traffic Mix		Visibility Restrictions		Bottom Type		Hazardous Materials Release		Aquatic Resources	
8.8	8.5	8.2	7.6	5.3	5.6	8.6	8.2	3.6	6.0	8.6	8.7
NO		NO		Balanced		Balanced		NO		NO	
Small Craft Quality		Congestion		Obstructions		Configuration		Mobility		Economic	
9.0	9.0	6.5	6.5	6.1	5.7	9.0	8.1	7.3	6.7	6.1	6.7
NO		Maybe		Balanced		Balanced		Balanced		NO	

Risk Factor	
Book 1 Score	Book 2 Score
Consensus Reached?	

	EXPLANATION
Book 1 Score	Level of risk - not taking into account existing mitigations
Book 3 Score	Level of risk - taking into account existing mitigations
Balanced	Consensus that risks are well balanced by existing mitigations
Maybe	No consensus that risks are well balanced by existing mitigations
Rising / NO	Consensus that existing mitigations DO NOT adequately balance risk

Section 5: Additional Risk Intervention Strategies

The last step in the workshop process was to complete book 4 wherein workshop participants offer ideas for additional mitigation strategies. Participants suggested additional risk intervention strategies to further reduce risk, and then evaluated how successfully a proposed strategy could be at lowering risk levels.

Additional mitigation strategies were discussed for those risk factors where there was consensus that risks were not adequately balanced by existing mitigation (Rising/No) from the book 3 evaluation. Due to workshop time limitations the risk factors of Small Craft Quality, Volume of Small Craft Traffic, Traffic Mix and Congestion were not included in the book 4 evaluation/discussion process.

The table below shows the expected level of risk if taking the actions recommended by the participants.

Additional Interventions					
Vessel Conditions	**Traffic Conditions**	**Navigational Conditions**	**Waterway Conditions**	**Immediate Consequences**	**Subsequent Consequences**
Deep Draft Vessel Quality	Volume of Commercial Traffic	Winds	Visibility Impediments	Personnel Injuries	Health and Safety
Balanced	Balanced	Balanced	Balanced	Balanced	Coordination / Planning 6.5
Shallow Draft Vessel Quality	Volume of Small Craft Traffic	Water Movement	Dimensions	Petroleum Discharge	Environmental
Balanced	(Book 4 not completed)	Nav / Hydro Info 7.3	Balanced	Nav / Hydro Info 7.4	Coordination / Planning 8.1
Commercial Fishing Vessel Quality	Traffic Mix	Visibility Restrictions	Bottom Type	Hazardous Materials Release	Aquatic Resources
Rules & Procedures 7.3	(Book 4 not completed)	Balanced	Balanced	Coordination / Planning 5.6	Coordination / Planning 8.4
Small Craft Quality	Congestion	Obstructions	Configuration	Mobility	Economic
(Book 4 not completed)	(Book 4 not completed)	Balanced	Balanced	Balanced	Coordination / Planning 6.4

Risk Factor	
Intervention Category	
Risk Improvement	

	EXPLANATION
Intervention Category	Intervention category that most participants selected to further reduce risks
Risk Improvement	The expected level of risk that would be obtained if new mitigations measures were implemented
CAUTION - NO CENSUS ALERT	When Caution is displayed, an intervention strategy other than the one displayed was judged to provide more risk reduction that the one displayed. This is an indicator that the teams were divided in their opinions about what actions should be taken to further reduce risks for that factor. It indicates there is possibility more than "one" best mitigation measure to achieve further risk reduction.

Coordination/Planning: Improve long-range and/or contingency planning, better coordinate activities and improve dialogue between waterway users and stakeholders.

Nav/Hydro Information: Improve Notice to Mariners, navigational charts, Coast Pilots, Light Lists, Automatic Identification System (AIS), tides and current tables, weather sensors, and weather broadcasting

***Rules & Procedures*:** Establish and/or refine rules, regulations, policies, and procedures including navigation rules, pilotage rules, standard operating procedures, crew member licensing, and required training and education.

Appendix A

Participants

Paul DiGiovanni	Reinauer Transportation
Gary Oliveira	McAllister Towing
Michael Power	Boston Tug and Towing
Sean Bogus	Northeast Marine Pilots
Mark Foley	Cape Cod Canal Pilots
Charles Gifford	Nantucket Steamship Authority
Pat Welch	M/V Seastreak (New Bedford Ferry)
Neil Churchill	Massachusetts Division of Marine Fisheries
Seth Garfield	Cuttyhunk Island Shellfish Farm
Richard Schultz	U.S. Coast Guard Sector Southeastern New England
John MacPherson	U.S. Army Corps of Engineers - Cape Cod Canal
Steven Mahoney	Massachusetts Department of Environmental Protection
Steve McKenna	Massachusetts Office of Coastal Zone Management
Patrick Moran	Massachusetts Environmental Police
Isaac Perry	Marion Harbormaster
Robert Sweet	Recreational Boater – Buzzards Bay Sail and Power Squadron
Phyllis Partridge	Recreational Boater - Beverly Yacht Club
Mark Rasmussen	Buzzards Bay Coalition
Joe Costa	Buzzards Bay National Estuary Program
Elise Decola	NUKA Research
Edward Anthes-Washburn	New Bedford Harbor Development Commission
Elizabeth Leidhold	Buzzards Bay Action Committee
Michael Gomes	Buzzards Bay Task Force
Marty McCabe	Massachusetts Pilot Commissioner, District 3 (Buzzards Bay)
Steven Lehmann	NOAA Scientific Support Coordinator
Michael Bloom	NOAA Northeast Navigation Manager
Tom Pham	Massachusetts Maritime Academy
Patrick Morkis	U.S. Coast Guard Cutter Ida Lewis
Jonathan Perry	Aquinnah Wampanoag

Observers

Todd Bailey	Bourne Department of Natural Resources
Richard Bowen	Public
Byron Black	First Coast Guard District
Deb Bryant	Coast Guard Auxiliary, U.S. Coast Guard Sector Southeastern New England
Barbie Burr	Burr Brothers Boats
Greg Clear	Public
Tim Cox	Fairhaven Shellfish Constable
Brian Fournier	McAllister Towing Portland ME
Arthur Frooks	U.S. Coast Guard Sector Southeastern New England
Arnold Geller	Coast Guard Auxiliary, U.S. Coast Guard Sector Southeastern New England
Greg Glavin	Brewer Onset Bay Marina
Alyssa Hall	NUKA Research
Jeff Hall	Kirby Offshore Marine
Daniel Hubbard	First Coast Guard District
Julie Hutcheson	Massachusetts Oil Spill Prevention & Response Program
Brian Joseph	New Bedford Assistant Harbormaster
Bill Klimm	Massachusetts Maritime Academy
Karen Kutkiewicz	First Coast Guard District
Edward LeBlanc	U.S. Coast Guard Sector Southeastern New England
Paul Locke	Assistant Commissioner, Massachusetts Department of Environmental Protection
Bob McCabe	Boston Harbor Pilot
Youngmee Moon	U.S. Coast Guard Sector Southeastern New England
Roy Nash	Nash Maritime Consulting
John O'Keefe	Deepwater Wind
Richard Packard	Nuka Research

Korrin Petersen	Buzzards Bay Coalition
Jonathan Schafler	First Coast Guard District
Matthew Stevens	Ballentines Boat Shop
Matthew Stuck	First Coast Guard District
Brian Vahey	American Waterways Operators

Appendix B

The workshop participants are local subject matter experts and these comments capture their opinions and analysis, providing a general sense of the ideas discussed during the workshop. These comments provide various perspectives representing widely different interests and should not be construed to represent the views of or statements by the United States Coast Guard.

Participant Comments on Trends in the Port and Existing Risk Mitigations

Deep Draft Vessel Quality:

Trends/Observations:

- Close to 100% of deep drafts are in excellent condition and have qualified crews.
- Most deep draft vessels are foreign flagged. In very rare cases, language can be an issue.
- Manning requirements depend on flag state, vessel type and size.
- Wind farm development may increase the number of deep draft vessels. These vessels will likely be required to meet the same material condition as existing deep draft vessels.
- Integrated Tug/Barges (ITBs) operating on Buzzards Bay are less than 1600 gross tons.
- Articulated Tug/Barges (ATBs) operating on Buzzards Bay are greater than 1600 gross tons.
- ITBs and ATBs make up approximately 63% of tug/barge traffic.
- In general, ITBs and ATBs are in excellent shape. Oil companies demand it.
- ITBs and ATBs meet safety standards comparable to those for deep draft ships.
- Tugs and barges have fewer crewmembers than deep draft ships.

Existing Mitigations:

- USCG Port State Control vessel inspection program.
- USCG vessel inspection regulations.
- Tankers and tank barges are double hulled.
- Pilotage, tug escorts, and marine credentialing requirements.
- Escort tugs are required for vessels transporting petroleum products.

Shallow Draft Vessel Quality:

Trends/Observations:

- Smaller vessels require smaller crews.
- Traditional tug and tows (wire boats) are typically in very good condition.
- Large yachts, which are often foreign owned and registered, are in very good material condition, but the crew may not be adequately trained and qualified. The number of large yachts is increasing.
- Cargo (gasoline, rock, etc.) is transported from New Bedford across Buzzards Bay to the Elizabeth Islands and to Vineyard Sound through Quick's Hole, and to the islands of Nantucket and Martha's Vineyard through Woods Hole Passage. Some small harbor tugs with fuel barges do not have the same inspection or credentialing requirements as the larger coastal tugs/barges.
- Some vessels in this category do not meet vessel quality standards of deep draft vessels.
- Towing vessels are only required to have 1 crew member standing watch on the bridge. Towing vessel companies often elect to have 2 crew members on the bridge when transiting the assessment area.

Existing Mitigations:

- Escort tugs and pilotage requirements.
- Extensive inspection requirements, including newly implemented Subchapter M. Most of the operators in the study area have been following these strict inspection requirements before Subchapter M was implemented.
- Strict licensing and training requirements for operators including refresher training.

Commercial Fishing Vessel Quality:

Trends/Observations:

- The fishing fleet is the focus of an oil spill reduction effort related to bilge oil discharges in New Bedford Harbor.
- Not as well maintained or crewed as the shallow and deep draft vessel categories.
- Although most of the larger fishing vessels are homeported in, and only transit through the study area en route to/from offshore fishing grounds, they still introduce risk to the waterway.
- The economics of the fishing industry limit maintenance and the number of crew.

Existing Mitigations:

- US Army Corps of Engineers (USACE) Cape Cod Canal Vessel Movement Reporting System (VMRS) vessel traffic controllers report safety discrepancies to authorities.
- New Bedford Harbor has a committee dedicated to fishing vessel safety.
- All agencies have been working together and focusing on fishing vessels for the last 2 years. Activities have included educational outreach and better enforcement of existing regulations.
- Vessels participating in the Federal Fishery Observer program must meet all safety requirements.
- The assessment area has a dedicated USCG commercial fishing vessel safety inspector.
- The fishing fleet is the focus of an oil spill reduction effort related to bilge oil discharges in New Bedford harbor.

Small Craft Quality:

Trends/Observations:

- Recreational vessel quality is average.
- The recreational boating safety education system is generally inadequate.
- 90% or more of USCG's search and rescue cases involve recreational boaters. During the busy season (Memorial Day to Labor Day), search and rescue cases average 30-40 each weekend.
- All of east and northeast Buzzards Bay, including Quicks Hole, Woods Hole, and Robinsons Hole, are popular areas for recreational boaters.

Existing Mitigations:

- Massachusetts requires a boating safety class for operators from 12 to 15 years old.
- The Power Squadron offers boating safety classes and safety pamphlets.
- The USCG has a strong presence in the recreational boating community, mainly through the USCG Auxiliary, who are very active in the area and promote boating safety through outreach, education, voluntary inspections, and a recently started paddle craft (kayaks, canoes, paddle boards, etc.) safety program.

Volume of Commercial Traffic:

Trends/Observations:

- Not all commercial traffic in Buzzards Bay continues through the Cape Cod Canal. Larger fishing vessels tend to transit via Woods Hole, Quicks Hole or Robinsons Hole.

- In 2013, 10 million short tons of cargo were shipped through the Cape Cod Canal. This decreased to 6 million short tons in 2016.
- Total transits through the Cape Cod Canal: 2011: 3,000; 2012: 3895; 2013: 4813; 2014: 2856; 2015: 1600; 2016: 1836. There are approximately 13 commercial transits through Cape Cod Canal per day. Combined with non-commercial traffic, there are over 50 vessel transits of the Cape Code Canal per day.
- Commercial traffic through the Cape Cod Canal is consistent throughout the year. Gasoline is predominantly shipped the summer, and heating oil in the winter.
- Increased cruise ship traffic (20-30 ships) from September to November.
- Increased commercial traffic in/out of New Bedford from October to March.
- Commercial waterway users have not experienced delays due to traffic.
- The Cape Cod Canal infrastructure is adequate for current traffic volumes.

Existing Mitigations:

- USACE Cape Cod Canal controls commercial vessel traffic.

Volume of Small Craft Traffic:

Trends/Observations:

- Cuttyhunk Island receives approximately 5,000 boats throughout the 80-day boating season. Traffic is extremely heavy, and infrastructure isn't adequate. A fireworks event recently attracted an additional 600 people to the island.
- Very heavy recreational traffic throughout the entire assessment area, but it's seasonal.
- Traffic generally flows from the mainland to the southern islands, and often crosses the traffic lanes used by larger commercial traffic.

Existing Mitigations:

- Participants reviewed existing mitigations listed in the PAWSA guide; no additional existing mitigation were discussed.

Traffic Mix:

Trends/Observations:

- The assessment area experiences a heavy mix of recreational, fishing and commercial vessel traffic. There are close interactions between large commercial vessels and recreational/fishing vessels.

- Recreational fishing vessels routinely fish in the navigational channel.
- There are areas where large sailing regattas take place; sailboats cross commercial traffic lanes in order to reach the regatta areas.
- Participation in the Cape Cod Canal Vessel Movement Reporting System (VMRS) only applies to vessels greater than 65 feet.
- The increasing popularity of and access to paddle craft has resulted in higher paddle craft use in the area; mostly seasonal.

Existing Mitigations:

- USACE Cape Cod Canal VMRS.
- Recommended Vessel Routes have been established and are plotted on navigational charts.

Congestion:

Trends/Observations:

- Seasonal congestion, consistent with comments included in the "Volume of Commercial Traffic" category.
- As recreational fishing tends to follow tidal movement, there is more vessel traffic an hour before and after slack water.
- Most waterway users try to avoid strong currents and transit during slack water.
- Congestion increases during the recreational boating season.

Existing Mitigations:

- USACE Cape Cod Canal VMRS.

Winds:

Trends/Observations:

- Prevailing southwest winds in the summer, and prevailing northwest winds in the winter.
- Southwest winds create a long fetch on the bay.
- Winds are well forecasted, and can exceed 20 knots several times per month.
- The area is known for rapidly changing winds.
- A National Oceanic Atmospheric Administration (NOAA) Physical Oceanographic Real-Time System (PORTS) system has not been established in the area.

Existing Mitigations:

- Weather forecasts are readily available and adequate.
- Pilots have self-imposed wind restrictions. For example, they won't transit the hurricane barrier in New Bedford during high winds.

Water Movement:

Trends/Observations:

- Cape Cod Canal diurnal tidal currents are in excess of 5 knots on a daily basis. There are horsepower restrictions for various current/tide stages. Currents affect vessel maneuverability and transit times through the Canal, but vessel traffic interactions in the Canal are well managed.
- All holes in the Elizabeth Island chain experience strong currents and large standing waves.
- Most vessels transit during slack water to avoid strong currents.
- A northwest breeze and incoming tide creates challenging navigational conditions at the passages through the Elizabeth Islands
- In locations where rivers meet the Bay, river currents and opposing winds form a dangerous combination.

Existing Mitigations:

- Tide and current predictions are readily available and adequate.
- Wave buoy in Cape Cod Bay.

Visibility Restrictions:

Trends/Observations:

- Winds and tides affect fog location and duration. Fog generally lasts for less than 24 hours.
- The Elizabeth Islands can serve as a fog boundary, with fog most likely from May to June.

Existing Mitigations:

- Sound signals, which are increasingly becoming mariner activated rather than automatic.
- Army Corps may restrict vessel traffic in the Cape Cod Canal during periods of reduced visibility.

Obstructions:

Trends/Observations:

- During cold years, ice can shut down or limit operations. Ice can pull out pilings, which float away and pose a risk to navigation. The upper bay (top 1/3) and Cape Cod Canal are most affected by ice.

Existing Mitigations:

- Waterway users and the USCG communicate well when it comes to ice reporting. Industry will voluntarily cease operations if ice poses a major risk.
- Local notice to mariners and broadcast notice to mariners announce obstructions to mariners.

Visibility Impediments:

Trends/Observations:

- The hurricane barrier in New Bedford obstructs visibility. It is approximately 20 feet tall.
- There are blind bends in the Cape Cod Canal. In certain locations, and depending upon vessel bridge height, background lighting on the banks of the Cape Cod Canal may affect visibility. This is usually associated with ongoing construction operations.
- The Cape Cod Canal walkway lights help with navigation, but the candle power was recently reduced. The reduced power is only an issue during restricted visibility.
- Two small bridges in Buttermilk Bay and Dartmouth affect small vessel visibility.
- Fort Phoenix parking lot lights in New Bedford obstruct visibility.
- Background lighting generally impedes visibility along the entire Buzzards Bay shoreline.

Existing Mitigations:

- USACE Cape Cod Canal VMRS.
- New Bedford Police boats will give traffic reports near the hurricane barrier. They will block small vessel traffic to facilitate a commercial transit if necessary.

Dimensions:

Trends/Observations:

- Vessel interactions are carefully coordinated in the Cape Cod Canal due to the narrow channel (600 feet wide). There are several areas where meeting and overtaking are not allowed.
- Meeting in the New Bedford channel is discouraged and often dangerous for large vessels.
- Quicks Hole and Woods Hole are narrow, and large vessels avoid meeting.
- Cuttyhunk Island is federal harbor of refuge, but is a small and shallow harbor, with a narrow approach channel that can wash out in storms.

Existing Mitigations:

- USACE Cape Cod Canal VMRS.

- Escort tugs help large vessels make turns.

Bottom Type:

Trends/Observations:

- Numerous rocks and ledges all along the New Bedford channel.
- The assessment area is generally rocky with a hard bottom including significant reefs and ledges at the southwest entrance, e.g., Sow and Pigs and Hens and Chickens reefs.
- The only soft bottoms are near the mouths of rivers, harbors, and the Cape Cod Canal, however the Canal has hard, rocky edges.
- A number of vessels have grounded on Cleveland Ledge, which lies near the entrance to the Cape Code Canal.
- A map of vessel groundings can be found at www.buzzardsbay.org and www.northeastoceandata.org.
- All the holes along the Elizabeth Islands chain have a hard bottom.

Existing Mitigations:

- Massachusetts Coastal Zone Management has completed bottom surveys using Side Scan Sonar in approximately 80% of Buzzards Bay. They are expanding the survey work to shallower waters.
- USACE routinely surveys and dredges areas of the Cape Cod Canal, especially areas prone to shoaling.

Configuration:

Trends/Observations:

- The approach to New Bedford Harbor has sharp turns.
- Woods Hole has sharp bends.
- The entrance to Westport River has a fishhook bend and bridge.
- The Cape Cod Canal has many sharp bends.

Existing Mitigations:

- USACE Cape Cod Canal VMRS.
- Pilotage requirements and escort tugs
- Bridge-to-bridge radio call-in points.
- Commercial traffic makes regular security broadcasts to announce their location to other vessels.

Personnel Injuries:

Trends/Observations:

- There have been 3 cruise ships accidents in the assessment area: Pilgrim Bell (1985), Bermuda Star (1990), and Queen Elizabeth II (1992). There were no serious injuries.
- Local ferries and smaller cruise line vessels transit the area, but carry less than 149 people.
- Larger passenger vessels (up to 500 people) transit through the assessment area in the fall.
- There are small vessels that offer several Cape Cod Canal tours per day.
- The Massachusetts Maritime Academy training ship, which is homeported near the entrance to the Canal, can carry up to 710 people, and usually makes 2 or 3 transits per year.

Existing Mitigations:

- The Massachusetts Maritime Academy training ship takes full time doctors and nurses on its training cruise. They also complete drills with the USCG.
- The multi-agency Buzzards Bay Task Force, coordinated through Sector Southeastern New England, is a force multiplier that responds to maritime emergencies in Buzzards Bay. It has significantly improved cooperation and coordination. Since the inception of the task force, time of emergency notification to agency response assets on scene has decreased by an average of 25 minutes.
- Mariners complete emergency training and man overboard drills. They also participate in largescale exercises run by government organizations.
- Security drills also include aspects of personnel injuries.
- Escort tugs must have firefighting capabilities.

Petroleum Discharge:

Trends/Observations:

- Most tankers are capable of carrying greater than 40,000 gross dead weight tons. However, draft restrictions in the Cape Cod Canal limit cargo to less than that.
- Approximately 2-3 million tons of gasoline is shipped through the Cape Cod Canal each year.

Existing Mitigations:

- Tankers and tank barges are double-hulled.

- Pilotage requirements and escort tugs help prevent petroleum spills. Prevention is better than response. Escort tugs help if the primary vessel has a casualty. Escort tugs also have firefighting capability.
- Massachusetts provides local officials with equipment and training. Oil spill training has been completed with every Buzzards Bay community (167 first responders).
- Massachusetts Maritime Academy has an oil spill simulator, and they've added real-time current sensors in the Cape Cod Canal to improve spill modeling.
- U.S. Coast Guard has an oil spill response structure along with a spill response team (Atlantic Strike Team) located at Fort Dix, NJ, immediately deployable to Buzzards Bay.
- There are Geographic Response Plans, which are tested regularly.
- The Area Contingency Plan was updated in August 2015. A portion of the plan is exercised each year.
- Every Buzzard Bay community has a 20 foot response trailer with 1000 feet of boom. There is also 1000 feet of ocean-going boom staged at the Massachusetts Maritime Academy and in New Bedford.
- Many Oil Spill Response and Removal Organizations (OSRO) have equipment staged up and down the coast.

Hazardous Materials Release:

Trends/Observations:

- Hazardous cargos are transported through the study area. They include organic solvents, sodium hydroxide, and an occasional chlorine barge. Approximately 1 million tons of Chemicals and Related Products were shipped through the Cape Cod Canal in 2016 according to the USACE Navigation Data Center, Waterborne Commerce Statics Center. Shipment of Ethanol was discussed, however, for the purposes of the workshop discussions Ethanol was considered a petroleum product and not a hazardous materials.
- Hazardous materials are only transported on tank barges, not tank ships.
- More data is needed to determine what types of hazardous cargo are transported through the waterway and what the Hazardous Material Release risks are.

Existing Mitigations:

- Massachusetts has a hazmat response structure with a marine component.
- U.S. Coast Guard has a hazmat response structure along with a hazmat response team (Atlantic Strike Team) located at Fort Dix, NJ, immediately deployable to Buzzards Bay.

- Many Oil Spill Response and Removal Organizations (OSRO) (which include hazmat) have equipment staged up and down the coast.

Mobility:

Trends/Observations:

- The Cape Cod Canal is vulnerable to marine accidents, and the waterway has closed due to previous casualties. However, the impact was reduced by rerouting traffic around Cape Cod.
- A port closure in New Bedford would have a significant impact because there are no alternate routes. This would greatly impact the fishing industry.

Existing Mitigations:

- If a waterway is closed, vessel traffic can be rerouted.
- All parties involved with a closure communicate effectively.
- Commercial vessels have salvage plans that are approved by the USCG.
- USCG Marine Transportation System Recovery Unit, which works to reopen waterways affected by natural or manmade incidents.
- USACE Cape Cod Canal VMRS.
- Pilot requirements and escort tugs.

Health and Safety:

Trends/Observations:

- The area is densely populated, and an incident could affect more than 150,000 people.
- There are only two highway bridges and one railroad bridge for evacuating Cape Cod.
- More data is needed to determine what types of hazardous cargo is transported through the waterway and what the health and safety risks are.

  .

Existing Mitigations:

- Pilotage requirements and escort tugs.
- The Buzzards Bay Coalition has collected a lot of scientific data, which supports a better response.
- Response to a hazardous material release is included in the area contingency plan.

- Local responders are trained for hazardous material responses, and their capability has improved in recent years.

Environmental:

Trends/Observations:

- Buzzards Bay is designated an Estuary of National Significance. With the exception of the hurricane barrier protecting New Bedford harbor, the Buzzards Bay shoreline is natural habitat. The Buzzards Bay shoreline is important to many sensitive and threatened species.

Existing Mitigations:

- NOAA performs tactical modeling. The University of Massachusetts-Dartmouth also performs modeling.
- Shoreline preservation and restoration projects help make shorelines more resilient.
- NOAA has environmental indices that are helpful for planning responses.

Aquatic Resources:

Trends/Observations:

- There are multiple species of finfish, shellfish, and crustaceans harvested year-round.
- Aquaculture, recreational and commercial fishing is extremely important to the local economy.
- The aquaculture industry is growing.
- An oil spill could close shellfish beds for up to a year.
- Fishing vessels transit through Buzzards Bay to fish offshore.

Existing Mitigations:

- Mitigations for aquatic resources are the same as those listed in the Environmental risk factor category.

Economic:

Trends/Observations:

- An economic impact study was completed for the Port of New Bedford in 2016. Seafood contributes approximately 90% or $9.8 billion to the regional economy.

- A major oil spill would significantly impact vacation rentals, the scallop industry, and the clementine industry, which has been transporting fresh fruit into New Bedford Harbor.
- If an oil spill were to occur in Buzzards Bay, it would greatly impact Cape Cod and the surrounding islands.

Existing Mitigations:

- Aquaculture operations are very conservative with regard to closures for incidents that could affect seafood safety or quality. They will only reopen once conditions are demonstrated to be safe. They also keep great records in order to seek reimbursement following an incident.
- Commercial vessels have salvage plans and contracts.
- U.S. Coast Guard has contracts with oil spill removal organizations (OSROs) and access to Coast Guard National Strike Force for spill response.
- USCG Marine Transportation System Recovery Unit (MTSRU) monitors the economic impacts of a port closure.

Appendix C

The below is a list of additional risk mitigation strategies workshop participants identified, discussed and evaluated.. The recommended additional risk mitigation strategies listed throughout this Appendix are not ranked in any order of priority and should not be construed to represent the views of or statements by the United States Coast Guard, nor reflect a consensus of the workshop participants.

Additional Risk Mitigation Strategies

Commercial Fishing Vessel Quality:

- Establish a bilge oil reclamation/recovery facility in New Bedford Harbor.
- Create State and local regulations governing bilge oil retention and disposal on fishing vessels.
- Enhance Federal and State enforcement of bilge oil/pollution regulations.
- Increase community outreach efforts and provide educational materials to improve commercial fishing vessel owners/operators understanding of Federal and State oil pollution regulations.
- Improve dialogue and communications between commercial fishing vessel operators and other waterway users and stakeholders.
- Mandatory licensing for commercial fishing vessels operators.
- Mandatory inspections for commercial fishing vessels.
- Increase education and outreach to commercial fishing vessel operators.
- Stronger enforcement of existing Federal and state regulations.

Water Movement:

- Establish a National Oceanic Atmospheric Administration (NOAA) Physical Oceanographic Real-Time System (PORTS) system.
- Establish weather data buoys that are Automatic Identification System (AIS) capable and disseminate real-time environmental data directly to the mariner using AIS.
- Improve tide and tide current predictions and accuracy by collecting more data.
- Increase the number of real-time environmental data sensors.
- Expand the number of Aids to Navigation (ATON).
- Increased use of AIS ATON.
- Place more weather data buoys throughout the bay.
- Install a wave buoy at Buzzards Bay tower.
- Install a tide meter for the Cape Cod Canal at the Massachusetts Maritime Academy.
- Increase underwater mapping/surveying of shallow areas of the bay
- Coordinate with academia to improve tide and current modeling.

Petroleum Discharge:

- Expand the number of Geographic Response Plans.
- Improve and test Geographic Response Plans.
- Increase the number of crew members required on towing vessels. (It was noted that the new "Subchapter M" regulations that will start to be enforced in the summer of 2018 may already address this mitigation.)
- Gain Federal support of the Massachusetts Oil Spill Prevention Act (MOSPA) tug escort requirements.
- Increase equipment/resources and training for responding to an oil spill.
- Increase contingency planning and the frequency of table top drills.
- Conduct more large scale oil spill response exercises.
- Conduct routine sampling of vessel cargo and bilges.
- Increase public outreach on oil spill endpoints to better protect sensitive habitats.
- Improve data collection, coordination and sharing between Federal and State authorities.
- Improve Natural Resource Damage Assessment coordination and planning between Federal and State authorities.
- Upgrade the Cape Cod Canal Vessel Movement Reporting System (VMRS) to an active Vessel Traffic Management system with the authority to control vessel movements and ensure vessels remain in the channel.
- Record VMRS interventions and actions to provide lessons learned.
- Identify areas where vessels are deviating from established channels and determine if ships are entering areas to be avoided, compile data on "out of channel" incidents.
- Establish a National Oceanic Atmospheric Administration (NOAA) Physical Oceanographic Real-Time System (PORTS) system.
- Place more weather data buoys throughout the bay.

Hazardous Materials Release:

- Conduct a hazardous material commodity flow study.
- Increase contingency planning and the frequency of table top drills.
- Increase the number of crew members required on towing vessels.
- Establish weather data buoys that are AIS-capable and disseminate real-time environmental data directly to the mariner using AIS.

Health and Safety:

- Expand the number of Geographic Response Plans.
- Continue to improve and test Geographic Response Plans.
- Conduct a hazardous material commodity flow study
- Identify specific populations/communities that are at risk in coastal areas.
- Practice evacuation drills and complete more tabletop exercises.
- Conduct routine sampling of vessel cargo and bilges.
- Install a wave buoy at Buzzards Bay tower.
- Establish a National Oceanic Atmospheric Administration (NOAA) Physical Oceanographic Real-Time System (PORTS) system.
- Increase public outreach and education.
- Increase contingency planning and the frequency of table top drills.
- Place more weather data buoys throughout the bay.
- Upgrade the Cape Cod Canal Vessel Movement Reporting System (VMRS) to an active Vessel Traffic Management system with the authority to control vessel movements and ensure vessels remain in the channel.
- Gain Federal support of the Massachusetts Oil Spill Prevention Act (MOSPA) tug escort requirements.

Environmental:

- Improve Natural Resource Damage Assessment coordination and planning between Federal and State authorities.
- Increase public outreach and training on oil spill response strategies and endpoints.
- Improve data collection and sharing between Federal and State authorities.
- Increase training on how to place off shore oil pollution containment boom.
- Increase contingency planning and the frequency of table top drills.
- Conduct a hazardous material commodity flow study
- Expand the use of AIS to broadcast environmental data.
- Increase offensive oil spill response capabilities and oil spill containment training.
- Conduct routine sampling of vessel cargo and bilges.

- Create base line data of aquatic habitats and species to aid in pollution response operations.
- Increase the number of crew members required on towing vessels.
- Place more weather data buoys throughout the bay.
- Improve coordination between the scientific community and academic institutions.
- Prevent releases through active vessel traffic management and controls.
- Educate local officials and the public on cleanup priorities and expectations.
- Gain Federal support of the Massachusetts Oil Spill Prevention Act (MOSPA) tug escort requirements.

Aquatic Resources:

- Establish procedures for moving aquaculture products to areas unaffected by an incident.
- Place more weather data buoys throughout the bay.
- Conduct mapping of shell fish resources and their locations.
- Improved data collection and sharing between Federal and State authorities.
- Improve Natural Resource Damage Assessment coordination and planning between Federal and State authorities.
- Conduct a hazardous material commodity flow study
- Increase public outreach and training on oil spill response strategies and endpoints.
- Create base line data of aquatic habitats and species to aid in pollution response operations.
- Conduct routine sampling of vessel cargo and bilges.
- Gain Federal support of the Massachusetts Oil Spill Prevention Act (MOSPA) tug escort requirements.

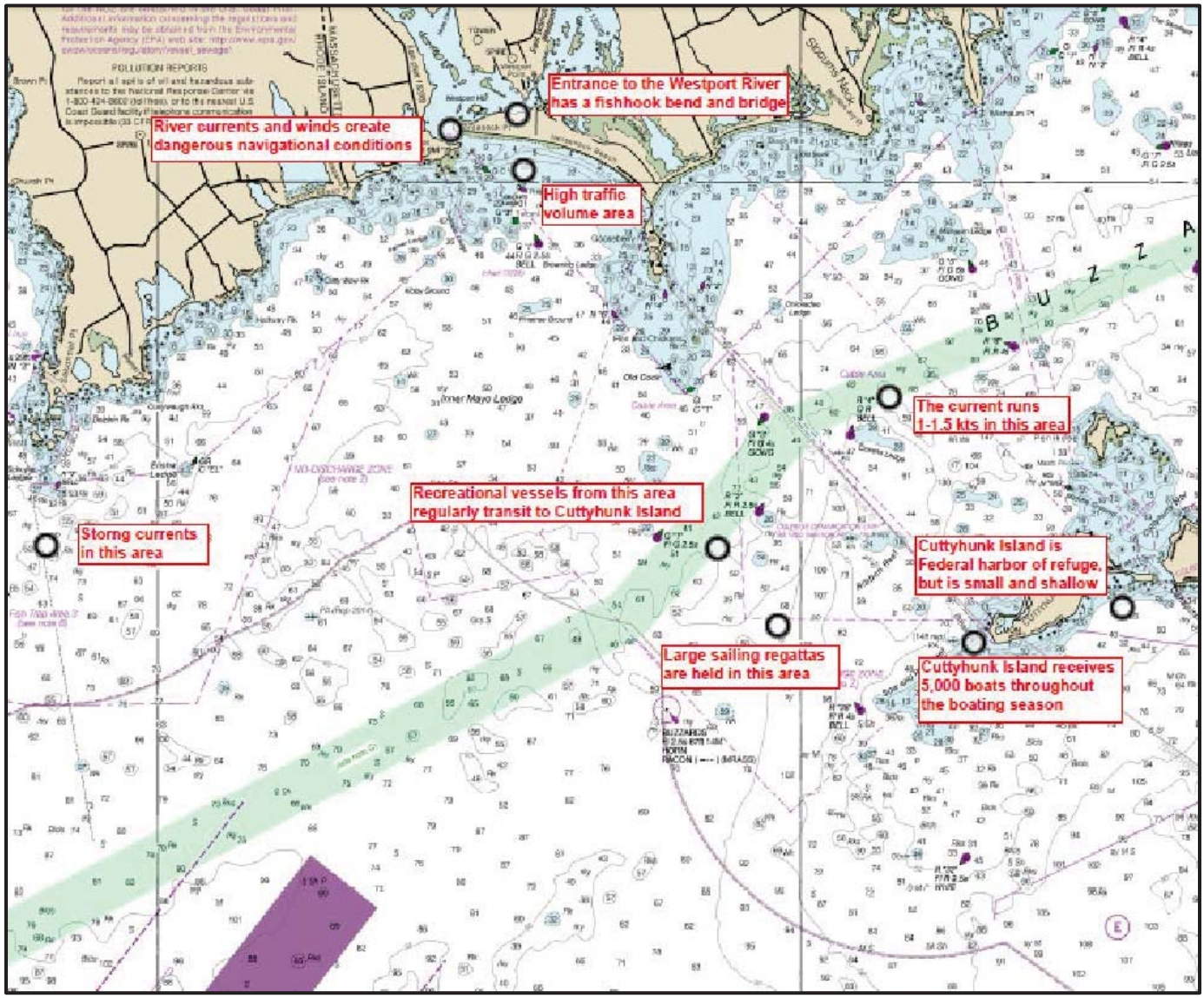
Economic:

- Develop standard procedures for closing and reopening fisheries after an oil spill.
- Prepare a post spill fisheries management plan.
- Identify areas vulnerable to spills and prepare booming strategies to block them off.
- Ensure emergency response plans are up to date and accurate.

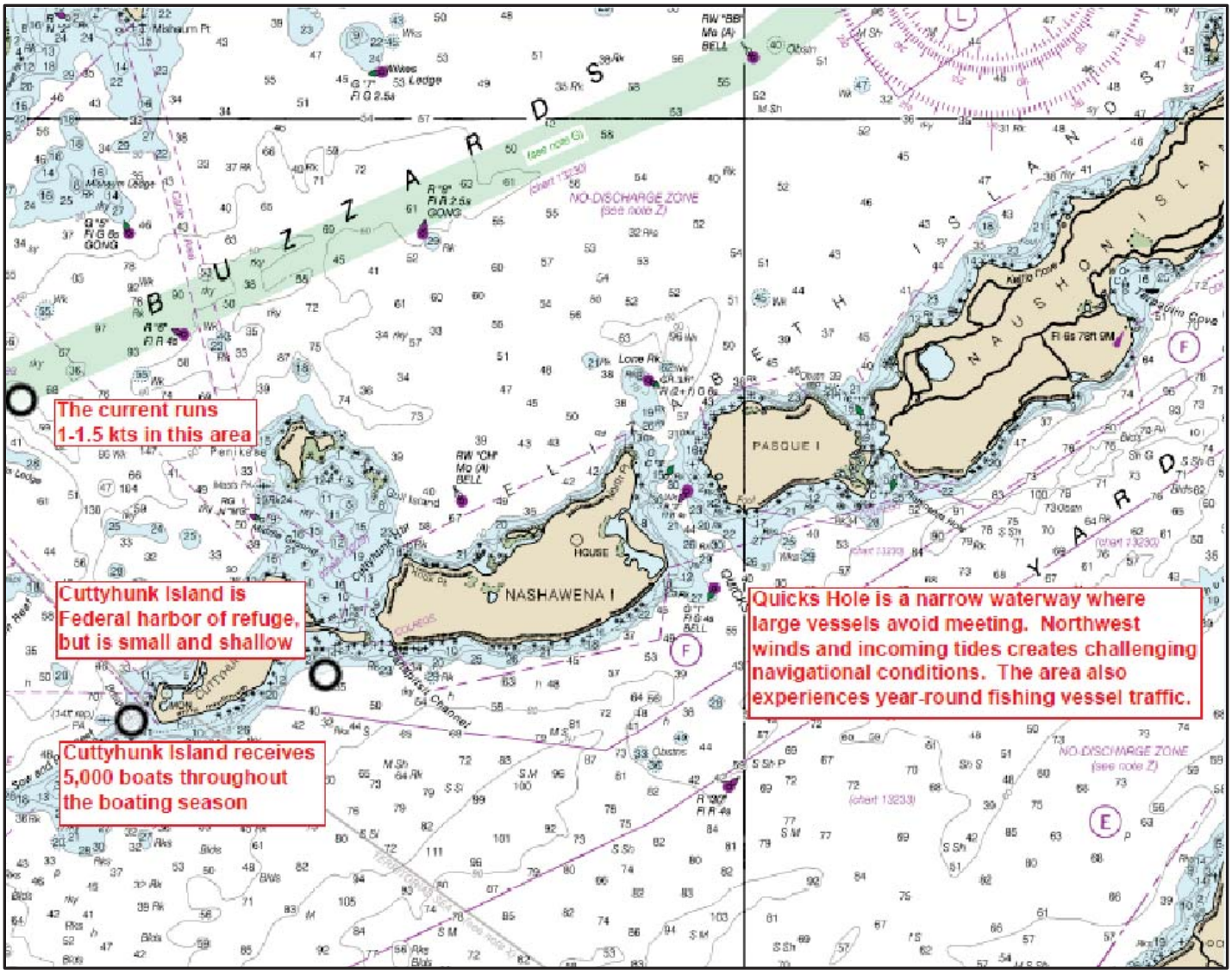
Appendix D

Navigation Charts with Participant Comments

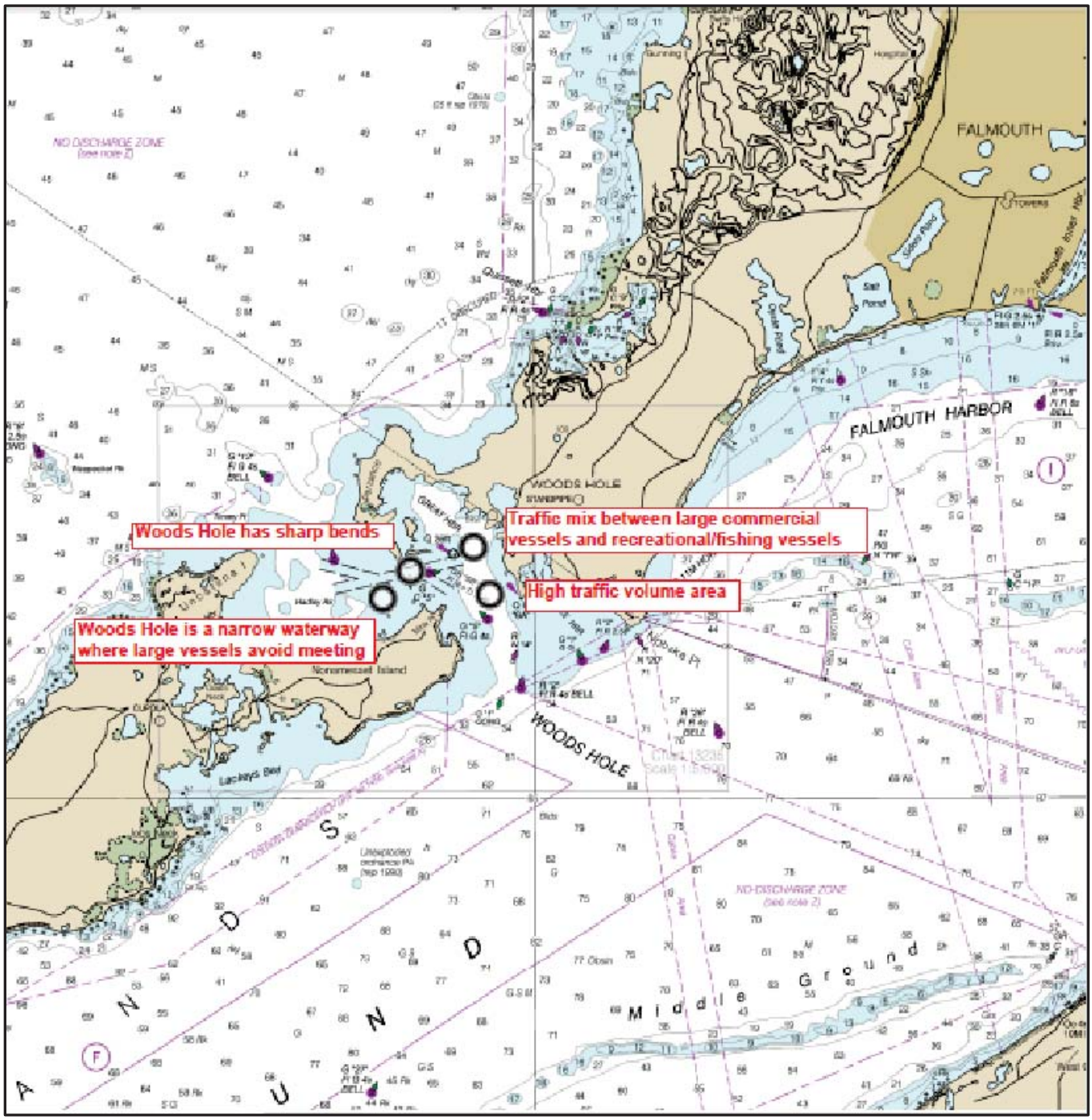
Western Entrance to Buzzards Bay – Chart 13218



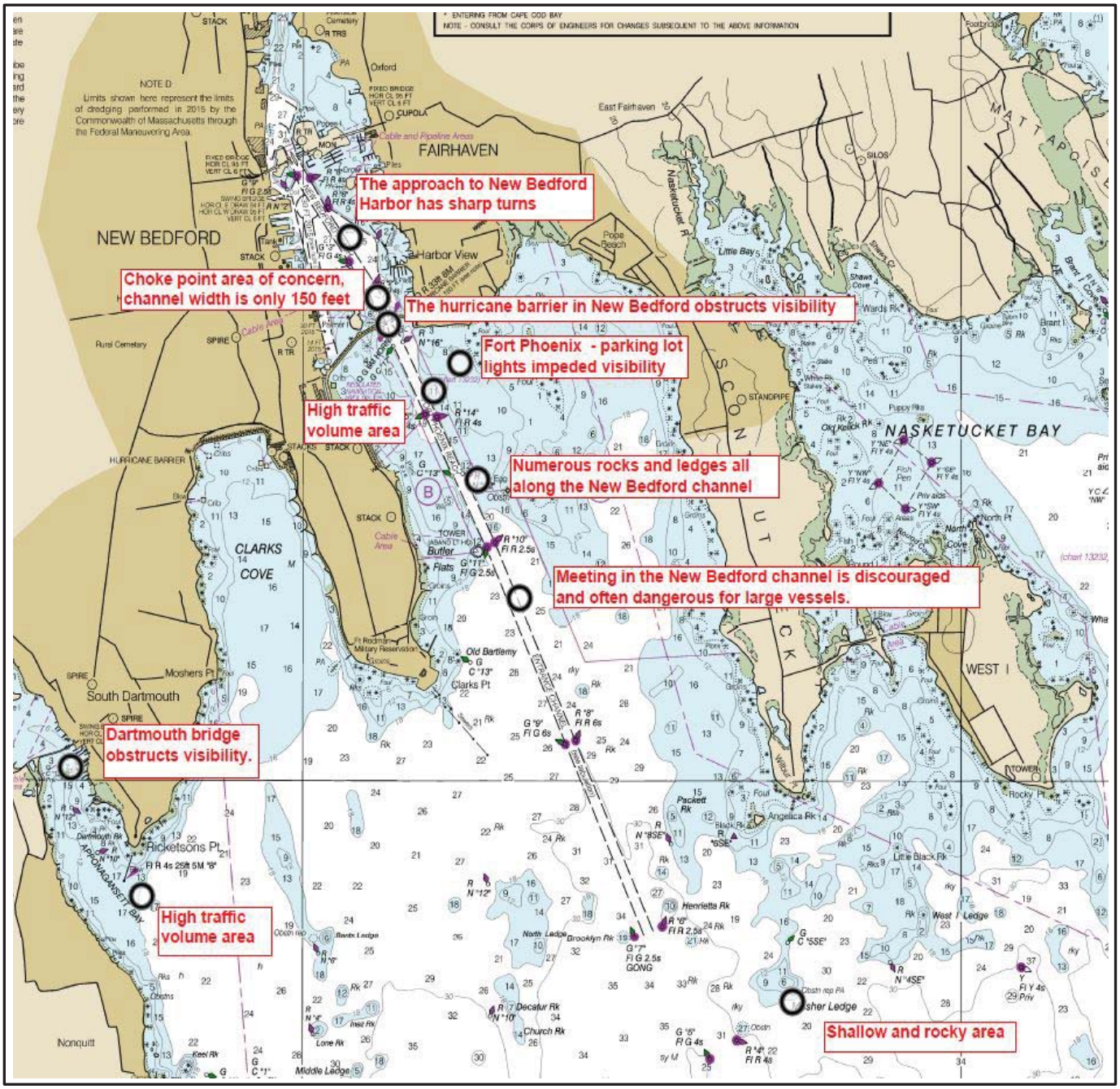
Quicks Hole - Chart 13230



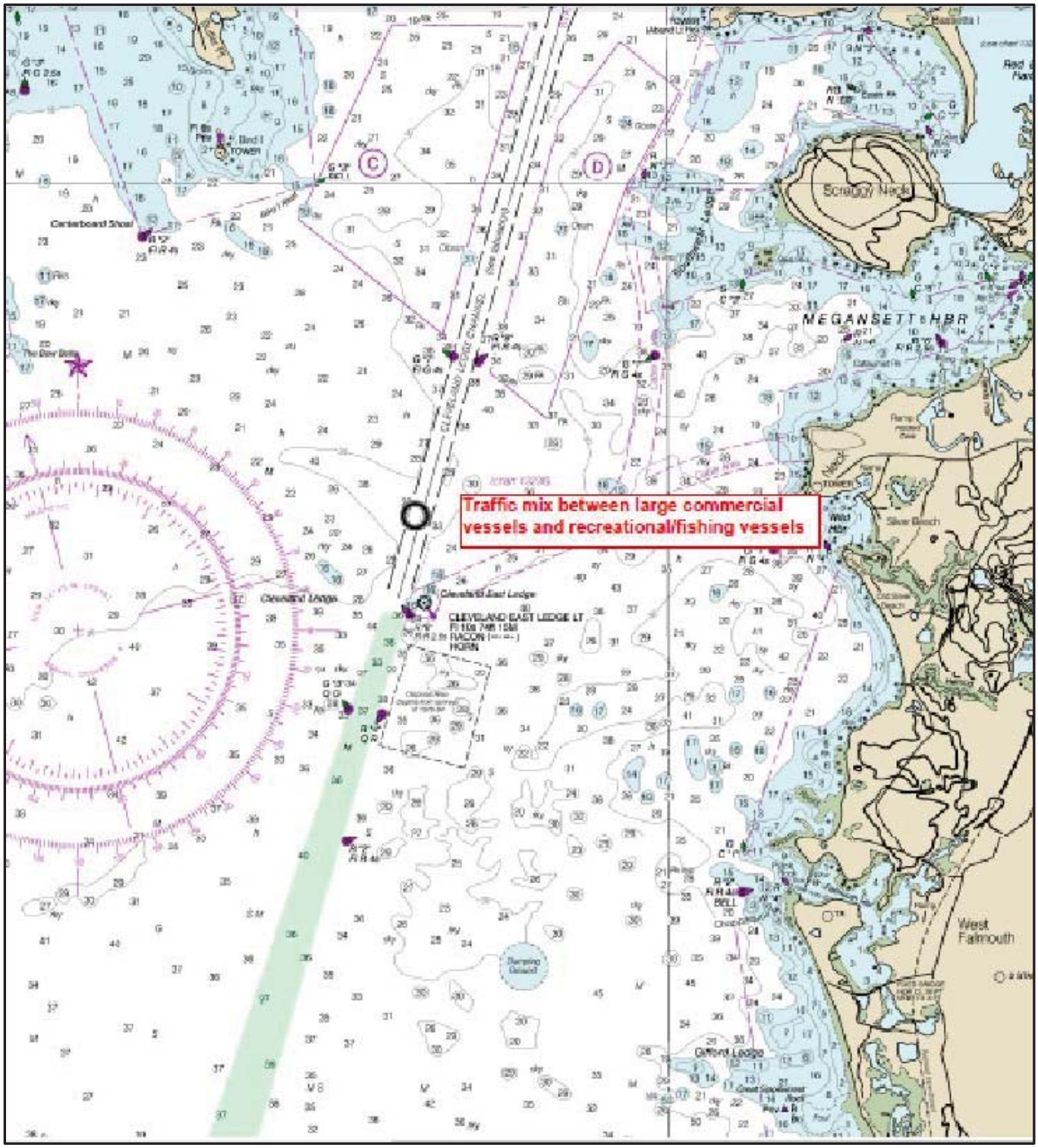
Woods Hole - Chart 13230



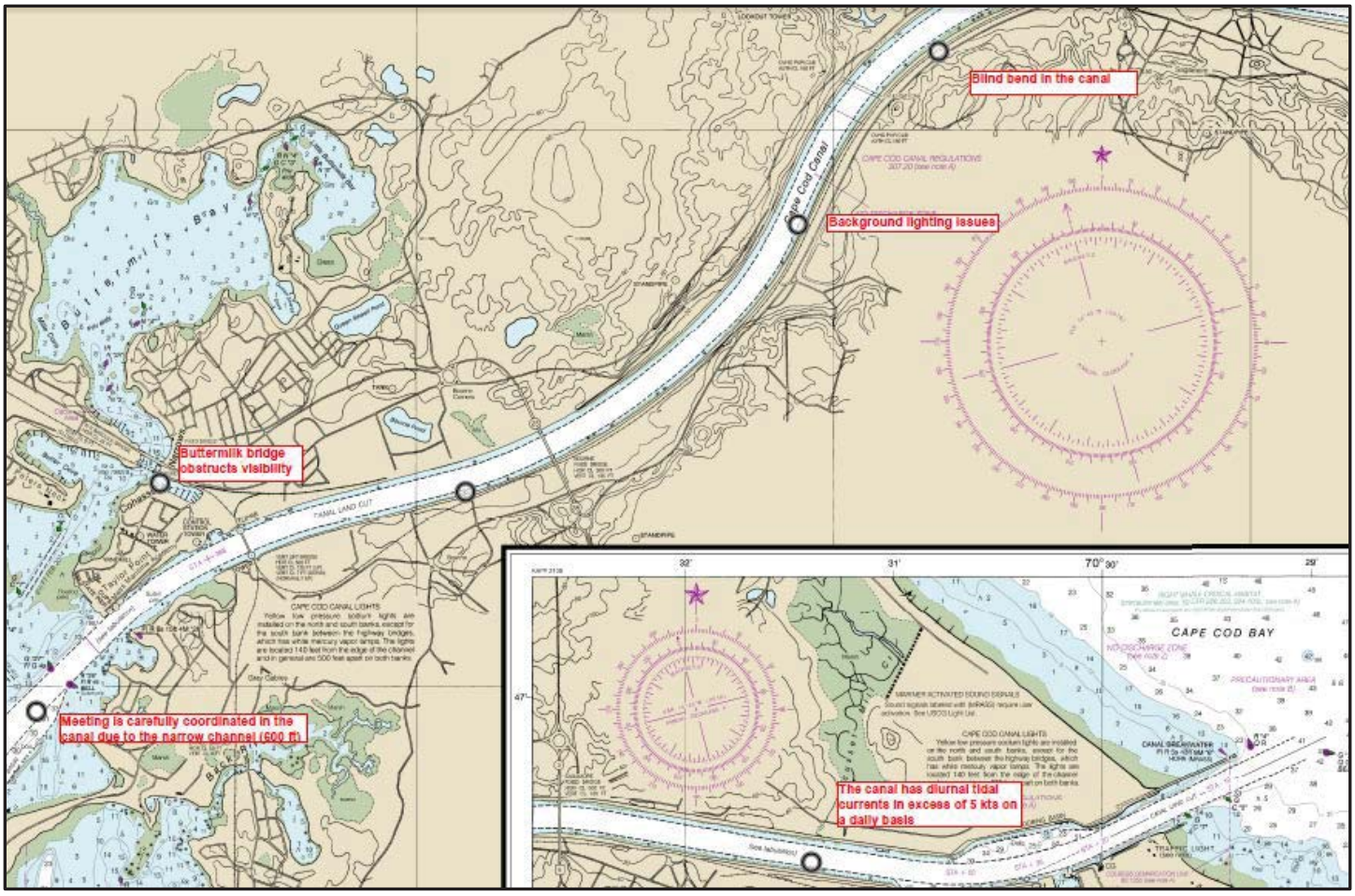
New Bedford Harbor - Chart 13230



Cleveland Ledge - Chart 13236



Cape Cod Canal - Chart 13236



Appendix E

References

Massachusetts State Boating Laws
https://www.mass.gov/service-details/massachusetts-boating-law-summary-0

Massachusetts Oil Spill Prevention Act (MOSPA)
https://www.mass.gov/files/documents/2017/12/15/FS%20-%20Buzzards%20Bay%20Tug%20Escort.pdf

Massachusetts Department of Environmental Protection
https://www.mass.gov/orgs/massachusetts-department-of-environmental-protection

US Coast Guard - Vessel Inspection Regulations
http://www.ecfr.gov/cgi-bin/ECFR?page=browse

International Convention of Standards of Training, Certification and Watchkeeping (STCW)
http://www.imo.org/en/About/conventions/listofconventions/pages/international-convention-on-standards-of-training,-certification-and-watchkeeping-for-seafarers-(stcw).aspx

US Coast Guard Vessel Traffic Services
https://www.navcen.uscg.gov/?pageName=vtsLocations

U.S. Navigation Rules
http://www.navcen.uscg.gov/?pageName=navRuleChanges

U.S. Army Corps of Engineers Regulatory Policies
http://www.usace.army.mil/Missions/

U.S. Army Corps of Engineers - Vessel Transit Statics
http://www.navigationdatacenter.us/

U.S. Army Corps of Engineers - Cape Cod Canal
http://www.nae.usace.army.mil/Missions/Recreation/Cape-Cod-Canal/

USCG Auxiliary Requirements for Recreational Boats
http://www.cgaux.org/boatinged/classes/2011/bss.php

State-Specific Boating Safety Requirements
http://www.americasboatingcourse.com/lawsbystate.cfm

National Oceanic and Atmospheric Administration, National Ocean Service
https://oceanservice.noaa.gov/

The American Waterways Operators
http://www.americanwaterways.com/

Life Lines Brochure - Safety Tips That Could Save Your Life
http://www.americanwaterways.com/commitment_safety/lifelines.pdf

Recreational Boating Safety - Accident Statistics
http://www.uscgboating.org/statistics/accident_statistics.php

American Canoe Association
http://www.americancanoe.org/

Appendix F

Abbreviations and Acronyms

ACP – Area Contingency Plan

AIS – Automated Identification System

ANPRM – Advance Notice to Proposed Rule Making

ATON – Aids to Navigation

BWI – Boating While Intoxicated

COTP – Captain of the Port

EPA – Environmental Protection Agency

GRP – Geographic Response Plans

GRS – Geographic Response Strategies

IMO – International Maritime Organization

MARAD – Maritime Administration

MOSPA – Massachusetts Oil Spill Prevention Act

MTS – Marine Transportation System

MTSRU – Marine Transportation System Recovery Unit

NDG – National Dialogue Group

NEPA – National Environmental Policy Act

NMFS – National Marine Fisheries Service

NOAA – National Oceanic Atmospheric Administration

OCIMF – Oil Company International Marine Forum

OSLTF – Oil Spill Liability Trust Fund

OSRO – Oil Spill Response Organization

PAWSA – Ports and Waterways Safety Assessment

PDF – Personal Flotation Device

PSC – Port State Control

PORTS - Physical Oceanographic Real-Time System

RNA – Regulated Navigation Areas

SIRE – Ship Inspection Report Program

SOLAS – Safety of Life at Sea

STCW – Standards of Training, Certification and Watchkeeping

TMSA – Tanker Management Self-Assessment

TMSS – Towing Management Safety System

USACE – United States Army Corps of Engineers

USCG - United States Coast Guard

VHF – Very High Frequency

VMRS – Vessel Movement Reporting System

VTM – Vessel Traffic Management

VTS – Vessel Traffic Service

First Coast Guard District
408 Atlantic Avenue
Boston, MA 02110

Prevention Division

Buzzards Bay Preemption Discussion Pre-Brief – 0800, 24 Jul 2017

Purpose:
Provide D1(d) with background and supporting information for 24 Jul call with DCO-d, DCMS-d, and TJAG to best position the CG to address navigation safety and federal preemption issues associated with the Buzzards Bay RNA.

BLUF: If regulatory action is required, pursue an A/NPRM that federally establishes MOSPA mandates, adjusting course as needed according to the findings of the associated environmental study.

Regulated Navigation Area Courses of Action:
To address the current RNA, which principally applies to single hull barges, D1 has three basic NPRM COAs:

1. [redacted]

Discussion:
While the VMRS requirements apply broadly, the remaining elements of the current RNA apply exclusively to single hull barges, which no longer exist. As such, the only federally required "additive safety" element is the CG-funded VMRS reporting system.

[redacted]

First Coast Guard District
408 Atlantic Avenue
Boston, MA 02110

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

1 [redacted]

First Coast Guard District

408 Atlantic Avenue
Boston, MA 02110

Additional Significant Information:

- In the last 15 years, two studies have been completed to determine navigational risk in Buzzard's Bay: a 2004 PAWSA initiated by the Coast Guard; and a more formal 'Buzzards Bay Risk Assessment' jointly commissioned and funded in January 2013 by of the State and CG. Additionally, in 2014 the CG completed a retroactive EA and FONSI.
- The PAWSA, Risk Assessment EA/FONSI will be reviewed for additional conclusions and general sufficiency.
- Three summative criticisms/concerns about any federal actions to change the Buzzards Bay regulatory status quo include:
    - Many industry stakeholders, including members of AWO, support MOSPA requirements because they provide relatively inexpensive layers of additional protection supporting good community relations. This view is held by the two largest petrochemical transporters, Bouchard (AWO member) & Rinehauer (withdrew from AWO), and McAlister which has the current assist-tug contract.
    - There have been no accidents and VMRS and tug escort costs are minimal – why roll back any protections?
    - Comparison with other locations: Prince William Sound, Puget Sound, and the Columbia River have additional navigation safety standards – Buzzards Bay should have like protection.
- Most specifically in August 2013, Sector SENE, seeking additional information to best inform the ANPRM, convened a structured Escort Tug Workgroup Meeting at the USACE CCC Field Office. The key meeting takeaway was that removing escort tug requirements would face extreme opposition because:
    - Historically, two Army Corps boats were stationed at the west end of the Canal to provide assistance and added navigation safety protection. Since these are no longer there, many view the escort tugs as now filling this role.
    - Escort Tug data patterns indicate some reliance on escort tugs. According to MA DEP annual reports to the legislature, in 2012 8% (51) of 643 escort tug sorties actually requested by the carrier to provide assistance (*awaiting 2013-16 data from MA DEP*). The metric itself is objective, but the implied correlation to Casualty Prevention is both subjective and difficult to refute.
- Since 2005, MISLE includes 205 marine casualties investigated in Buzzards Bay. 18 of those involved a barge, 5 of those involved a tank barge as follows, only the first of which may potentially have benefitted from an assist tug (not required under MOSPA for that transit):
    - May 2016: ATB BARRY SILVERTON and barge FIGHT ALS (empty), transiting the Canal allided with the port quarter of the moored tug INDEPENDENCE, damaging both vessels. Incident attributed to lack of familiarity by the pilot and current in the canal.
    - August 2016: Minor oil discharge from Barge MEROPA 900. Improper tankerman ops.
    - January 2013: The passenger ship NORTHERN STAR, while attempting to board a pilot, collided with the Barge PENN NO 80 (undamaged).
    - February 2008: Barge MEROPA 900 discharged 1 gallon during fueling.
    - March 2006: A fishing vessel (at fault) collided with an empty asphalt (undamaged) barge pushed in the notch by UTV EVERLAST in reduced visibility within the canal.

The American Waterways Operators

801 North Quincy Street
Suite 200
Arlington, VA 22203

PHONE: [redacted]
EMAIL:

Brian Vahey
Senior Manager – Atlantic Region

April 6, 2018

RADM Steven Poulin
First District Commander
U.S. Coast Guard
408 Atlantic Avenue
Boston, MA 02110

Re: Buzzards Bay Ports and Waterways Safety Assessment

Dear RADM Poulin:

The American Waterways Operators is the national trade association for the U.S. tugboat, towboat, and barge industry. Our industry is the largest segment of the nation's 40,000-vessel Jones Act fleet and moves more than 760 million tons of cargo each year safely and efficiently, including more than 80 percent of New England's home heating oil. As an industry that is deeply invested in oil transportation in Buzzards Bay and on the Cape Cod Canal, I am writing to express AWO's concern with the U.S. Coast Guard's Ports and Waterways Safety Assessment (PAWSA) workshop held on February 7 and 8 in Wareham, MA.

The PAWSA workshop did not include a single AWO member company engaged in the transportation of oil in Buzzards Bay or on the Cape Cod Canal. In fact, the only industry representatives chosen to participate in the workshop benefit financially from the current unconstitutional Massachusetts law, including representatives from towing companies that provide escort tug services and pilots who benefit from expanded pilotage requirements. The Coast Guard's failure to include oil transporters not affiliated with companies that provide tug escort services, or even to allow them to speak during the workshop, prevented their valuable perspective from being heard during the workshop's discussions and during the risk evaluations. It was particularly egregious to us that the Coast Guard stood by its decision to exclude AWO member tank barge operators even after we made a direct request to the agency to reconsider this decision prior to the PAWSA.

Excluding this crucial stakeholder perspective and expertise will undoubtedly skew the PAWSA final report and its future recommendations impacting oil transportation in Buzzards Bay. For example, throughout the two days of discussions, there was an unchallenged

agreement among participants that the Commonwealth's requirement for tug escorts has been an unqualified success. There was no opportunity for companies required to hire the escort tugs to provide their perspective on the relative safety value of the service or on any of the other Massachusetts requirements that impact their operations.

AWO believes that every participant in the PAWSA cares deeply about safety and environmental protection. The companies that participated in the PAWSA are industry safety leaders, but they have also made significant investments in escort services for Buzzards Bay. It is not fair to ask or to expect representatives from these companies to represent the full range of barge and towing vessel operations in Buzzards Bay. Moreover, the Coast Guard decision to exclude industry representatives who transport oil in Buzzards Bay from the PAWSA is unfair to these operators and will make the final report skewed and incomplete.

We are very disappointed with the basic inequity of the recent PAWSA process and we urge you to acknowledge that the final report is incomplete and not a sound basis for future Coast Guard decisions.

Sincerely,

Brian W. Vahey

Brian W. Vahey
Senior Manager – Atlantic Region

U.S. Department of Homeland Security
United States Coast Guard

Commander
First Coast Guard District

408 Atlantic Ave
Boston, MA 02110
Staff Symbol: (dpw)
Phone: (617) 223- 8385
Fax: (617) 223- 8070

3531
May 7, 2018

Mr. Brian Vahey
Senior Manager-Atlantic Region
801 North Quincy Street, Ste 200
Arlington, VA 22203

Dear Mr. Vahey,

On behalf of RADM Poulin, thank you for your letter of April 6, 2018, highlighting some American Waterway Operators (AWO) concerns from the Buzzards Bay Ports and Waterways Safety Assessment (PAWSA) workshop. A key principle of PAWSA methodology is assembling local waterway experts with a diversity of experience related to the area of study. To support this objective, a balanced and diverse group of participants from varied marine disciplines was thoughtfully selected for the PAWSA.

The final PAWSA report will be published to the NAVCEN website in the coming weeks and is one element that the Coast Guard will consider when deciding what, if any, next steps will be taken. We look forward to continued cooperation with AWO and all our valued stakeholders in the future.

As the report has not yet been finalized, I recognize that the participant list has not been publically communicated. Specific to your petroleum transporter concerns, representatives from Reinauer Transportation which deals exclusively in oil transportation and McAllister Towing provides both petroleum transportation and escort tug services in Buzzards Bay were invited to participate. The AWO website currently lists McAllister Towing as a member of your organization and its board of directors.

I would like to thank you again for personally attending the Buzzards Bay PAWSA workshop with a representative from Kirby Offshore Marine. As you witnessed firsthand, the PAWSA workshop is a facilitated process to draw input across a number of risk areas from the participants. As was communicated throughout the workshop, during breaks and lunches, observers were also encouraged to communicate their concerns to the participants for discussion in the workshop.

If you have any further questions, please feel free to contact my Chief of Waterways Management, Mr. Matthew Stuck, at [redacted] or [redacted] or LT Daniel Hubbard, at [redacted] or [redacted]

Sincerely,

B. L. Black
Captain, U.S. Coast Guard
Chief, Prevention Division

Buzzards Bay Way Forward Brief Objectives

- *Understand regulatory history and background of Buzzards Bay.*
- *Discuss current status of the Waterway.*
- *Review D1 Planned COAs.*

USCG2045

1969 - 2004: Buzzards Bay History

- Since 1969 Buzzards Bay has experienced 6 significant oil spills, and in 1985 was designated a National Estuary.
- Most recent significant oil spill was in 2003 from the Bouchard-120 tank barge releasing 98,000 gallons of No. 6 fuel oil.
- In 2003, CG then conducted a Ports and Waterways Safety Assessment (PAWSA) which recommended VMRS/ tug escorts/ recommended routes/ and enhanced crew requirements.
- In 2004, the Massachusetts Oil Spill Prevention Act (MOSPA) was passed, a state law that endeavored to regulate multiple activities within the Coast Guard's authority.

USCG2046

2005 - 2011: Buzzards Bay Litigation

- In 2005, the U.S. sued Massachusetts over MOSPA to determine supremacy of CG regulations over state regulations. AWO was permitted to join the U.S. in that preemption lawsuit.
- In 2007, CG issued RNA titled “Special Buzzards Bay Regulation” requiring escort tugs and independent pilotage for single-hull barges and established the Vessel Movement Reporting System (VMRS).
- In 2011, Court of Appeals found that the 2007 RNA had a fatal NEPA flaw and lifted court order enjoining MOSPA enforcement. Tug and barges carrying 6,000 or more barrels of oil still required to employ an escort tug while transiting Buzzards Bay.

2011 - 2017: Buzzards Bay Litigation

- In 2013, D1 issued ANPRM requesting comments on 'WX conditional' tug escorts, independent pilotage, and amending the VMRS population to only oil laden barges.
- In 2014, D1 released retroactive environmental assessment and Finding of No Significant Impact attempting to cure NEPA flaw from 2011 court decision.
- Since January 2015, all tank barges are double-hulled due to OPA, and *tug escort preemption remains only issue in dispute*.
- After 2015, court status hearing, the litigation has been inactive since leaving the issue of preemption unsettled.
- Massachusetts has been maintaining data on the instances where escort tugs are engaged. (Data set: 2011-2017)

USCG2048

2011-2017: MA Tug Assist Summary

- On average 690 loaded tug/barge transits per year that receive an escort tug (from USACE).
- MA DEP reported 41 assists or roughly 6% of yearly transits are physically engaged by escort tug to render aid (steering, power, steadying barge, weather, assistance in casualty).
- 11 unique MISLE cases involve tug escort assistance during casualty.
- ~103 instances where escort tug was made fast to provide power or steering assist through transit.
- Non-oil assists include : 13 cement, 5 ethanol, 2 deck barge, 1 crane. (data from MA DEP)

USCG2049

February 2018: Buzzards Bay PAWSA

- On 7-8 Feb 18, Sector SE New England and D1 held a PAWSA Workshop with 29 participants forming 13 teams from tribal, federal, state, and local governments, as well as environmental and industry groups.
- The participants rated the waterway with a higher levels of risk than the 2003 PAWSA despite the implementation of many mitigations during the intervening period.
- Mitigations in effect include double-hull barges/ VMRS/ AIS/ escort tugs/ Sub Chapter M/ charted recommended routes/ improved ATON/ improved geographic response plans.

February 2018 - Present: PAWSA Recommendations

After review by participants, the PAWSA Report was made public on 1 JUN 2018. Most commonly cited (of 90+) recommendations:

1. Gain Federal support of the Massachusetts Oil Spill Prevention Act (MOSPA) tug escort requirements.
2. Conduct a hazardous material commodity flow study.
3. Record VMRS interventions and actions to provide lessons learned.
4. Increase community outreach efforts and provide educational materials to improve commercial fishing vessel owners/operators understanding of Federal and State oil pollution regulations.
5. Conduct more large scale oil spill response exercises.

Currently there is no active litigation, media interest, or political inquiry concerning the PAWSA.

USCG2051

Future: Amended Regulations

- Portions of existing 2007 RNA are out of date and need to be revised (i.e., language specific to single-hull barges).
- Other aspects of the existing regulation (i.e., VMRS) and the need for other waterway controls need to be revisited with updated awareness of waterway's current use and risk profile.
- Updated regulation may overtake course of existing 2007 RNA legal controversy.

D1's Way Ahead:

1. Actively Gather Post-PAWSA Waterway Information-

- ***Follow Through on PAWSA:***
  - Maintain collaborative environment & relationships.
  - SEC SENE identified federal, state or local agency action items from the PAWSA Report. These issues will be discussed at the November Port Safety & Security Forum to target information gaps.
- ***Renegotiate Operation of Buzzards Bay VMRS*** - The CG-funded VMRS does not record types/ amounts of HAZMAT or instances of tug escort. D1 will engage USACE to add data collection to capture tug assists and HAZMAT commodity flow awareness.
- ***Conduct Data Informed Analysis*** **-** After collecting information that resolves gaps identified in PAWSA and ensuring a complete understanding of the waterway's risk profile, consider legally defensible regulatory steps to address risk in the waterway.

USCG2053

Other COAs Considered:

[redacted]

From: Poulin, Steven D RADM
To: Andersen, Steven J RDML
Cc: Lederer, Calvin M SES; Judge, Brian GS15
Subject: BUZZARDS BAY LITIGATION
Date: Friday, July 29, 2016 12:19:14 PM

Steve -

Would like to set up a call on Monday of possible to talk about Buzzards Bay. I think it would be helpful for both of us to chat in light of a meeting I had with AWO reps yesterday.

They pressed me hard on Buzzards Bay preemption re the RNA - it was essentially their singular focus. They specifically pressed me to do an EIS on the 2007 RNA to provide a launch point to re-litigate the federal preemption issue. I told them I had no intent to look back at the 2007 RNA; from my perspective the litigation was closed. While we had hoped the EA would have cured the NEPA (CATEX) defect highlighted in the First Circuit's decision, it was our assessment along with DOJ that the district court on remand was generally displeased with the notion of reopening the case based on that EA. They told me that they (including Jonathan Benner) were more optimistic about reopening the case based on the EA, and their take-away from the district court was different than ours. It was clear that they are strongly leaning towards trying to reopen the case.

I suggested that before they move forward that Jonathan should come in to talk with you, Cal, and Brian - and likely DOJ as well. They obviously hope that we would join in the effort to reopen, so I think Jonathan needs to hear our candid assessment.

I told them that I wanted to look forward, assess what our preemption rulemaking might look like and how it may inform how we proceed, and that as the new operational commander I wanted to take stock of the area and requirements before I decided on any new RNA for Buzzards Bay. In short, any resolution to Buzzards Bay would take time and need to be informed by the status of our preemption rulemaking and what we decided to do with an amended RNA. I also mentioned that the RNA and federal preemption issues are politically sensitive so we need to be very deliberate and thoughtful in how we move forward, especially with a new Administration taking over in a few months.

They were sorely disappointed and suggested this would likely be an issue that Tom Allegretti wants to talk with me about at the AWO conference in NYC at the end of August. I think it would be helpful for us to compare notes so that we have a consistent message back to AWO. Moreover, they feel our perceived lack of commitment to fighting the Buzzards Bay preemption indicates the CG is taking a step back from our strong stance on federal preemption ... of course, I reminded them of what we did with California and Washington State recently regarding state oil spill legislation and how we have sought to strength the preemption provisions of the Vessel Incidental Discharge Act.

Thanks,

SDP

Steven D. Poulin, RADM
Commander, First Coast Guard District
408 Atlantic Avenue
Boston, MA 02110
PH: (617) 223-8480
Fax: (617) 223-8115
Cell: (202) 222-8130

Judge, Brian GS15

From: Andersen, Steven J RDML
Sent: Thursday, February 16, 2017 5:27 PM
To: Judge, Brian GS15; Gilreath, Shannon N CAPT
Cc: Lederer, Calvin M SES; Batson, Richard E CAPT; Mooradian, Christopher P CAPT; Douglass, Bronwyn CIV; Kroutil, Katia G CIV
Subject: FW: Thanks
Attachments: MA Litigation Timeline - FINAL.pdf

Some background for tomorrow's discussion on the Buzzard's Bay litigation. Close hold please. I will separately share with RADM Poulin.

sja

-----Original Message-----
From: Tom Allegretti [mailto:tallegretti@americanwaterways.com]
Sent: Thursday, February 16, 2017 6:53 AM
To: Michel, Charles D ADM; Andersen, Steven J RDML
Subject: [Non-DoD Source] Thanks

ADM Michel, RDML Andersen—

Thank you very much for the discussion yesterday and for generously sharing your time with me. I found the exchange to be very helpful and most productive. I hope you did as well.

As I said, there is no more important issue to AWO members than winning the lawsuit against the Commonwealth of Massachusetts and reestablishing legal clarity that it is solely the Coast Guard's authority to regulate interstate commerce and the operations of domestic vessels serving the economy of the United States. The status quo of allowing an unconstitutional law to remain in place and regulate the operations of tugboats and barges in Buzzards Bay is completely unacceptable to AWO.

We understand the complexity of this issue and our discussion yesterday was illuminating in defining the options before us. I mentioned the attached timeline yesterday. It reminds us that the Coast Guard and AWO have already secured three judicial verdicts on this case that sustain our position on the merits. Unfortunately, our lawsuit has gone from being on the cusp of victory to indefinite suspension. We want to work with you to reestablish our momentum toward the successful resolution of this proceeding.

We are encouraged by the opportunity to bring Coast Guard, DOJ and AWO counsel together to discuss our options for doing so. Thank you for setting up that meeting.

AWO's counsel is Jon Benner with Thompson & Coburn. He can be reached at 202-256-7821 or at jbenner@thompsoncoburn.com.

Tom

_____

Thomas A. Allegretti
President & CEO
The American Waterways Operators cid:image003.jpg@01CF0AD8.B3A0D770
801 North Quincy Street, Suite 200
Arlington, VA 22203

americanwaterways.com
(703) 841-9300, Extension 250
cid:image004.gif@01CF0AD8.B3A0D770 <https://urldefense.proofpoint.com/v2/url?u=http-3A__www.facebook.com_pages_American-2DWaterways-2DOperators_159481737397509&d=CwMFaQ&c=0NKfg44GVknAU-XkWXjNxQ&r=qHLvzJF5IRE41Ndg69iVqFRWMWrVXy1hAHDouY5s5YQ&m=9_JfauDJvLLPQjbrfsbbsF6Bjf5V1zXlyoFdx2cP4Qk&s=OMseT8H6-w9fteiX0HFfiGWjWhMSFkNyXen4u45gWKk&e=> cid:image005.gif@01CF0AD8.B3A0D770 <https://urldefense.proofpoint.com/v2/url?u=https-3A__twitter.com_AWOAdvocacy&d=CwMFaQ&c=0NKfg44GVknAU-XkWXjNxQ&r=qHLvzJF5IRE41Ndg69iVqFRWMWrVXy1hAHDouY5s5YQ&m=9_JfauDJvLLPQjbrfsbbsF6Bjf5V1zXlyoFdx2cP4Qk&s=OE3Z_vYveTprK7WKdjhMev1pLKt6rZaF13DXya6Rfmg&e=>

Judge, Brian GS15

From: Andersen, Steven J RDML
Sent: Thursday, July 13, 2017 7:34 PM
To: Michel, Charles D ADM
Cc: Lederer, Calvin M SES; Raymond, Joe W CAPT; Gilreath, Shannon N CAPT; Judge, Brian GS15
Subject: Update: Preemption & Buzzards Bay

Admiral - on 24 July my staff and I will propose a plan of action on the Buzzards Bay RNA at a meeting with D1, DCOd, DCMSd. After that meeting I will present you with a proposed way ahead that will be informed by the various Coast Guard offices that have responsibility for execution.

In related news, Mr. Allegretti has requested, via DOJ, a meeting/call with DOJ ENRD & Coast Guard for next week. DOJ accepted and then informed us. No agenda has been proposed for the meeting. Brian Judge will be our rep. We reached out to AWO's attorney for the Buzzards Bay litigation and he was unaware of the meeting and therefore does not believe he is invited. Will keep you updated.

v/r steve

-----Original Message-----
From: Andersen, Steven J RDML
Sent: Wednesday, June 07, 2017 9:03 AM
To: Michel, Charles D ADM
Cc: Lederer, Calvin M SES; Raymond, Joe W CAPT
Subject: AWO Update

Sir - below are the summarized points I made to AWO's Chief Operating Officer (Jennifer Carpenter) during a 40 minute conversation yesterday afternoon. Attached is the follow up e-mail I sent her this morning.

Main Points
- the CG is aligned with AWO on the objective to achieve consistent standards of nationwide application
- the CG consistently engages when we become aware of proposed state actions that we believe violate preemption principles
- despite our continuing opinion that MOSPA violates preemption principles, the CG (w/ DOJ advice) does not intend to reopen the current litigation because the record in that case is not strong -- the AWO attorney was part of that discussion and apparently concurred
- the CG is actively considering other options for Buzzard's Bay including when to initiate a new RNA, the environmental analysis that would accompany a new rulemaking, and the application of the administration's regulatory reform principles
- we generally discussed timing and expected areas of resistance/friction to any future attempts to preempt MOSPA, either through litigation or rulemaking. I noted that we must balance Buzzard's Bay actions against other pressing matters (e.g. Hudson River)
- I posited that there is no quick solution to removing the application of MOSPA -- she acknowledged and did not offer any ideas or counter positions.
- I also shared in a very general sense that I am implementing internal options to ensure the CG remains vigilant to preemption issues that may arise across the country.

Jennifer indicated she understood, and in my opinion she generally agreed with the points I made.

She did make the statement that MOSPA was "extraordinarily problematic" for AWO. When I pressed her on the basis for "extraordinarily" she retreated to the underlying concern that it violates preemption principles. She acknowledged that from a practical perspective application of MOSPA is not overly problematic, but it is the principle that most bothers AWO. She restated the concern that that MOSPA may encourage other states to take similar action (which we have not seen).

I apologize that you were blindsided by Tom last night. My next steps are to reduce to writing the proposed COAs and risks, coordinate that document with D1 and DCO, and share that with leadership.

v/r steve

From: Judge, Brian GS15
To: Andersen, Steven J RDML
Cc: Lederer, Calvin M SES
Subject: RE: Next Steps
Date: Wednesday, July 26, 2017 9:30:00 AM

Admiral,

The last meeting was the telephone call Friday, July 21st, at 1530. The other meeting with Jonathan Benner at his office was March 23rd.

There was no new info/strategy agreed to by anyone. AWO raised their concerns that the situation with MOSPA cannot just keep going on forever.

The only thing that I can correlate with a "pivotal decision point" was the fact that I did point out that AWO had the attention of the Coast Guard's senior leadership pointing to the fact that Mr. Allegratti had meet with ADM Michel. I further stated that the Coast Guard was considering the best path forward with regard to MOSPA and the Buzzards Bay RNA, but the decision on that would come from well above my pay grade and that no decision had been made yet. Jennifer Carpenter said the last time that she had spoken with you, you told her the decision would be made sometime this summer and asked if that was still the time frame. I replied something like, "If that is what RDML Andersen told you, he would know better than I. I don't know anything that would contradict that."

That is the closest that I can think of any discussion that would correlate with "pivotal decision point."

v/r,

Brian

-----Original Message-----
From: Andersen, Steven J RDML
Sent: Wednesday, July 26, 2017 8:42 AM
To: Judge, Brian GS15
Cc: Lederer, Calvin M SES
Subject: FW: Next Steps
Importance: High

Brian - just want to confirm that there was no new info/strategy discussed when AWO met with DOJ/CG, right? I'm puzzled by the language below including "a lot has happened" and "pivotal decision point". Any idea to what he refers?

Also, remind me when that last meeting was.

sja

-----Original Message-----
From: Michel, Charles D ADM
Sent: Wednesday, July 26, 2017 8:25 AM
To: Andersen, Steven J RDML
Subject: FW: Next Steps
Importance: High

Your thoughts on the below, please, Steve.

-----Original Message-----

From: Tom Allegretti [mailto:tallegretti@americanwaterways.com]
Sent: Wednesday, July 26, 2017 6:40 AM
To: Michel, Charles D ADM
Subject: [Non-DoD Source] Next Steps

ADM Michel,

I would like to come by to brief you on the state of our discussions regarding next steps together on this critical issue. A lot has happened since we met in February and we are at a pivotal decision point. With your permission, I will have my assistant call your office to schedule a convenient time for me to come by.

Tom

-----Original Message-----
From: Michel, Charles D ADM [mailto:Charles.D.Michel@uscg.mil]
Sent: Thursday, February 16, 2017 1:22 PM
To: Tom Allegretti <tallegretti@americanwaterways.com>
Cc: Andersen, Steven J RDML <Steven.J.Andersen@uscg.mil>; O'Connor, John C CAPT <John.C.O'Connor@uscg.mil>
Subject: RE: Thanks

Thanks, Tom, for making the time for our discussion yesterday and for your patience in scheduling our meeting. I greatly appreciate the frank conversation and am comforted knowing that we share the same desired outcome and goals. I am further convinced that bringing the relevant parties together to ensure the same factual baseline and to assess risks/rewards in the potential courses of action going forward is essential.

You have my attention on this important matter going forward and I will remain engaged as we determine next steps.

Best,

Chuck

ADM Chuck Michel
Vice Commandant
U.S. Coast Guard
(202) 372-4400
charles.d.michel@uscg.mil

-----Original Message-----
From: Tom Allegretti [mailto:tallegretti@americanwaterways.com]
Sent: Thursday, February 16, 2017 6:53 AM
To: Michel, Charles D ADM; Andersen, Steven J RDML
Subject: [Non-DoD Source] Thanks

ADM Michel, RDML Andersen—

Thank you very much for the discussion yesterday and for generously sharing your time with me. I found the exchange to be very helpful and most productive. I hope you did as well.

As I said, there is no more important issue to AWO members than winning the lawsuit against the Commonwealth of Massachusetts and reestablishing legal clarity that it is solely the Coast Guard's authority to regulate interstate commerce and the operations of domestic vessels serving the economy of the United States. The status quo of allowing an unconstitutional law to remain in place and regulate the operations of tugboats and barges in Buzzards Bay is completely unacceptable to AWO.

We understand the complexity of this issue and our discussion yesterday was illuminating in defining the options before us. I mentioned the attached timeline yesterday. It reminds us that the Coast Guard and AWO have already secured three judicial verdicts on this case that sustain our position on the merits. Unfortunately, our lawsuit has gone from being on the cusp of victory to indefinite suspension. We want to work with you to reestablish our momentum toward the successful resolution of this proceeding.

We are encouraged by the opportunity to bring Coast Guard, DOJ and AWO counsel together to discuss our options for doing so. Thank you for setting up that meeting.

AWO's counsel is Jon Benner with Thompson & Coburn. He can be reached at 202-256-7821 or at jbenner@thompsoncoburn.com.

Tom

_____

Thomas A. Allegretti
President & CEO
The American Waterways Operators cid:image003.jpg@01CF0AD8.B3A0D770
801 North Quincy Street, Suite 200
Arlington, VA 22203
americanwaterways.com
(703) 841-9300, Extension 250
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DEPARTMENT OF HOMELAND SECURITY
U.S. Coast Guard
DIGEST

☐ APPROVAL ☐ SIGNATURE ☑ INFORMATION

From: DCO 9/29/17
To: CG-00 P.F. Zukunft 10/4/17
Thru: CG-09 10/2/17

Subj: Update on Buzzards Bay Ports and Waterways Safety Assessments (PAWSA)
Purpose: First District plans to execute a PAWSA for Buzzards Bay, MA with the PAWSA workshop tentatively scheduled for 9-10 Jan 2018.

Discussion: This PAWSA is needed to assess the current navigational risk in Buzzards Bay. Considering the political sensitivities, D1 is already developing its key messaging for executive outreach to elected officials and key stakeholder groups. Early understanding of D1's rationale for this study, and garnering maximum participation from key groups, is vital. Broader public messaging will follow the executive engagement phase, with a press release announcement of the PAWSA and participant selection targeted for October. A timeline for the Buzzards Bay PAWSA is attached. CG-5PW is maintaining close ties with D1, 094, and 092 staffs to ensure alignment and external messaging.

Background: The Massachusetts Oil Spill Prevention and Response Act (MOSPRA) currently requires a tug escort for all barges in Buzzards Bay and was the cause for prior federal preemption litigation between MA and the Coast Guard (joined by AWO). As such, any Coast Guard action to review navigation safety within Buzzards Bay will likely raise significant concern with elected officials and other key waterway stakeholders.

However, the existing Regulated Navigation Area (RNA) in 33 CFR 165.100 for navigable waters of the First District is obsolete. The advent of newer double hulled barges, expanded AIS carriage requirements, Subchapter M implementation, and other advances in technology have changed the risk picture. The USACE Cape Cod Canal marine traffic control system, which watches over the 17 mile Cape Cod Canal, has also been upgraded with radar, CCTVs, and other sensors, to make it an advanced display and decision control system which further mitigates navigational risk.

Enclosures (1) Buzzards Bay Port and Waterways Safety Assessment (PAWSA) Timeline

SIGNER'S COMMENTS

Signer's Name: Paul F. Zukunft, ADM

CG-4229 (11/14)

USCG2070

Judge, Brian GS15

From: Andersen, Steven J RDML
Sent: Monday, October 23, 2017 8:39 AM
To: Judge, Brian GS15; Gilreath, Shannon N CAPT
Cc: Lederer, Calvin M SES
Subject: FW: Further to Our Discussion

Brian - I'd like to discuss today what this might look like if AWO attempts to go it alone.

sja

-----Original Message-----
From: Andersen, Steven J RDML
Sent: Monday, October 23, 2017 8:37 AM
To: Michel, Charles D ADM
Cc: Ray, Charles W VADM; Fagan, Linda L RADM; Poulin, Steven D RADM; Lederer, Calvin M SES; Raymond, Joe W CAPT; Allan, Thomas G CAPT
Subject: RE: Further to Our Discussion

Aye sir. Will consider what the "AWO alone" litigation might look like, if they go through with that. Somewhat disappointing that the AWO comms implies a lack of trust in the CG.

D1 recently started making PAWSA notifications to congressional staffs. We'll discuss with Steve Poulin the effects of potential AWO litigation on the PAWSA and whether to adjust PAWSA timing.

v/r steve

-----Original Message-----
From: Michel, Charles D ADM
Sent: Monday, October 23, 2017 7:26 AM
To: Andersen, Steven J RDML
Cc: Ray, Charles W VADM; Fagan, Linda L RADM; Poulin, Steven D RADM; Lederer, Calvin M SES; Raymond, Joe W CAPT; Allan, Thomas G CAPT
Subject: FW: Further to Our Discussion
Importance: High

Steve,

This is obviously a very important communication. We'll see Tom this week and will need to figure out a coordinated way ahead.

ADM Chuck Michel
Vice Commandant
U.S. Coast Guard
(202) 372-4400
charles.d.michel@uscg.mil

-----Original Message-----

From: Tom Allegretti [mailto:tallegretti@americanwaterways.com]
Sent: Monday, October 23, 2017 7:19 AM
To: Michel, Charles D ADM
Cc: Andersen, Steven J RDML; Jennifer Carpenter
Subject: [Non-DoD Source] Further to Our Discussion

Admiral Michel--

It was good to see you at the Coast Guard Foundation dinner in New York earlier this month, and Jennifer and I are looking forward to being with you and your colleagues at the Senior Leadership Conference on Wednesday. We're very appreciative of the opportunity to speak at that important gathering.

I wanted to follow up to our exchange below to let you know that at our recent Fall Convention, AWO's Board of Directors directed us to file a motion in district court to restore our lawsuits against the Commonwealth of Massachusetts to active status. The Board's decision was not taken lightly. It followed extensive discussion over the course of two days about the situation we face in Massachusetts and the larger challenge to our industry of maintaining federal primacy in the regulation of vessel operations. You should know that our members view the unconstitutional Massachusetts statute as an existential threat to the efficiency and viability of their businesses. Ultimately, the Board's decision hinged on its concern that, despite the plan to undertake a Ports and Waterways Safety Assessment for Buzzards Bay, the Coast Guard has not committed to a clear path to return to court to bring this long-running litigation to a successful conclusion. While we would much prefer to proceed in tandem with the U.S., our members simply do not have confidence that the Coast Guard truly intends, or wants, to resume the litigation. They have, therefore, reluctantly concluded that we have no choice but to take independent action to reactivate the two cases and to overturn this unconstitutional state law.

Chuck, I hope you understand that this decision reflects no disrespect for the Coast Guard and that our commitment to the Coast Guard-AWO partnership remains deep and strong. On this matter, however, we sense that the Coast Guard and our industry have different perspectives on the imperative and the urgency of getting these unconstitutional state laws off the books. Allowing the Massachusetts statutes to stand unchallenged indefinitely is simply untenable for us and unacceptable to us.

We recognize and appreciate the considerable amount of personal time and attention you have devoted to this issue. As always, we remain open to continued dialogue, but want to be clear about the depth of our concern and the direction we have received from our Board.

Tom

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Thomas A. Allegretti
President & CEO
The American Waterways Operators cid:image003.jpg@01CF0AD8.B3A0D770
801 North Quincy Street, Suite 200
Arlington, VA 22203
americanwaterways.com
(703) 841-9300, Extension 250
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From: Michel, Charles D ADM [mailto:Charles.D.Michel@uscg.mil]
Sent: Monday, September 11, 2017 3:54 PM
To: Tom Allegretti <tallegretti@americanwaterways.com>
Cc: Jennifer Carpenter <jcarpenter@americanwaterways.com>; Andersen, Steven J RDML <Steven.J.Andersen@uscg.mil>
Subject: RE: Further to Our Discussion

Thanks, Tom, for your patience in allowing me a few days to reply. HARVEY and IRMA have been all consuming.

As discussed during our recent meeting on Buzzard's Bay, we definitely want to move this process forward now and we definitely want to do it in full partnership with AWO.

In the next couple of weeks, Rear Admiral Steve Poulin will engage regional constituents and officials in preparation for the public announcement of the Buzzard's Bay PAWSA in October. We are activating Reservists to support the PAWSA and the workshop that will be held in early January. This PAWSA approach is key to assessing risk, scoping the environmental and operational concerns, and building a strong record for the ultimate nullification, removal, or injunction of the offensive MOSPA provisions. I request AWO's support for this effort moving forward.

I understand that your preference is to focus on curing the NEPA analysis that the court found faulty in its 2011 decision in order to reopen the litigation soonest -- I do appreciate the continued candid input. As we discussed, while neither a PAWSA nor a new RNA is required to reopen the existing litigation, we believe that it is in our collective best interests to conduct the PAWSA first. Among other benefits, the PAWSA will help the Coast Guard better scope the environmental analysis and build a solid foundation for future actions.

The Coast Guard remains committed to preserve federal authority and to ensure consistent vessel standards that will encourage safe, efficient, and responsible maritime commerce. Although reasonable minds can differ on the best approach to achieve this outcome as it relates to MOSPA, we are fully aligned on the outcome -- to enjoin the enforcement of state law provisions that are preempted by federal law.

I am happy to sit down with you and my team anytime to discuss this or any related matters as we finally get this process off top dead center and press forward. Please let me know if you have questions.

Chuck

ADM Chuck Michel
Vice Commandant
U.S. Coast Guard
(202) 372-4400
charles.d.michel@uscg.mil

-----Original Message-----
From: Tom Allegretti [mailto:tallegretti@americanwaterways.com]
Sent: Thursday, September 07, 2017 6:42 AM
To: Michel, Charles D ADM
Cc: Jennifer Carpenter
Subject: [Non-DoD Source] RE: Further to Our Discussion

Thanks, Chuck. Standing by.

From: Michel, Charles D ADM [mailto:Charles.D.Michel@uscg.mil]
Sent: Wednesday, September 6, 2017 11:17 AM

To: Tom Allegretti <tallegretti@americanwaterways.com>
Cc: Jennifer Carpenter <jcarpenter@americanwaterways.com>
Subject: RE: Further to Our Discussion

Thanks for this thoughtful e-mail, Tom. Please give me a little time to study and digest this and I'll respond to you soon.

Chuck

ADM Chuck Michel
Vice Commandant
U.S. Coast Guard
(202) 372-4400
charles.d.michel@uscg.mil

-----Original Message-----
From: Tom Allegretti [mailto:tallegretti@americanwaterways.com]
Sent: Wednesday, September 06, 2017 6:56 AM
To: Michel, Charles D ADM
Cc: Jennifer Carpenter
Subject: [Non-DoD Source] Further to Our Discussion

ADM Michel –

Congratulations on the great front page coverage the Coast Guard got in The Washington Post yesterday. It perfectly captured the selfless devotion to duty of Coast Guard men and women and why the service is important to the nation today, and will be more so in the future.

I am writing to follow up on our discussion last month. First, let me say thank you for the generosity of your time in that meeting and for the obvious attention that you and your team have given to the question of how to move forward in Buzzards Bay. Jennifer and I have taken some to reflect on our conversation and to discuss with the AWO Leadership Council the course of action that you and RDML Andersen outlined during our meeting. I would like to share our further thoughts as a result of those discussions.

Second, it was gratifying to all of us to hear your reassurance that you have “not wavered one bit” in your commitment to protect federal authority to regulate vessel operations, and we were encouraged by your willingness to commit resources to move this issue off of top dead center and find a way forward. Jennifer also had the opportunity to visit with Mike Emerson and his team the week before last, and came away with the clear sense that his office is moving forward with energy to support the First District in standing up the PAWSA process this fall. As we told you at our meeting, we share the Coast Guard’s interest in making sure that we have in place the right set of protections to ensure navigation safety in Buzzards Bay, and you can count on AWO to be a constructive partner in that process.

At the same time, I want you to know that we were very troubled by some of what we heard in that meeting. There is a part of the Coast Guard's line of thinking on this case that, in our view, has lost sight of what is most important to accomplish, and is defined by considerations that are not central to our defense of the U.S. Constitution. We believe – and AWO members share the view – that it is critical that the federal government and industry litigants move forward as expeditiously as possible to take the legal steps needed to bring U.S. v. Massachusetts to successful conclusion. Given our mutual goals of upholding the Constitution, preserving federal authority, and striking the unconstitutional Massachusetts law from the books (the reasons we commenced this litigation together in the first place 12 years ago), the central question to be answered is: How do we most efficiently bolster the administrative record in response to the First Circuit remand so that we can resume the litigation as soon as possible? The imperative of doing so has only increased as AWO members have continued to bear the costs of compliance with unconstitutional state requirements,

and other states, from Washington to New York, take action that would trample on the Coast Guard's authority. This central question and this imperative seem to have been lost in some of what we heard during our discussion.

I share this concern with you in candor and with respect and hope you will accept it in that spirit.

The First Circuit ruling was clear that the administrative defect that resulted in the remand was the absence of a NEPA analysis by the Coast Guard. Our several meetings with the Coast Guard, the Department of Justice and AWO counsel over the last six months (most recently in late July) have confirmed that the necessary step to resume the litigation is for the Coast Guard to prepare a NEPA analysis. (Those discussions have not resolved the question of whether an EIS or an EA is required). While the Coast Guard is free to take additional steps, such as undertaking a PAWSA and considering whether any changes to the 2007 RNA are warranted, neither a PAWSA nor a new RNA is required as part of the critical path to resume the litigation. But, some of what we heard seemed to suggest that we must first conduct the PAWSA and consider a new RNA before we resume litigation. That further delay is unacceptable to us.

We are also concerned that the PAWSA process – while a most worthy one from the standpoint of risk assessment and stakeholder engagement – not divert resources from conducting the required NEPA analysis to pave the way for a timely return to court. We respectfully request that the Coast Guard work with DOJ and AWO counsel to agree on the scope of the NEPA analysis needed and develop a plan to complete the analysis as efficiently as possible, in tandem and concurrently with the PAWSA process. We are very concerned by the prospect of waiting to have these discussions until after the PAWSA is completed, further delaying our return to court to defend the federal government's constitutional prerogative.

Chuck, I apologize for the length of this communication, but we felt it important to put in writing our further thinking and our serious concerns. Thank you again for your personal attention to this issue of critical importance to our industry and the Coast Guard. We know you have an extraordinary amount on your plate. We remain hopeful that the federal government and our industry can go forward together to achieve our shared goal of defending the Constitution and ensuring uniform vessel standards, in Buzzards Bay and around the country.

Tom

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Thomas A. Allegretti
President & CEO
The American Waterways Operators cid:image003.jpg@01CF0AD8.B3A0D770
801 North Quincy Street, Suite 200
Arlington, VA 22203
americanwaterways.com
(703) 841-9300, Extension 250
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U.S. Department of Homeland Security

United States Coast Guard

Commandant
United States Coast Guard

470 L'Enfant Plaza SW, Suite 7110
Washington, DC 20024
Staff Symbol: CG-0921
Phone: (202) 225-4775
Email: House@uscg.mil

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MAR 07 2019

The Honorable Bennie Thompson
Chairman, Committee on Homeland Security
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman,

Thank you for your letter of December 20, 2018 regarding the regulation of certain tank vessels in Buzzards Bay, Massachusetts. We are currently working with the Department of Justice to address the recently commenced litigation referenced in your letter.

There is a history of litigation concerning this matter, which ultimately resulted in a finding by the First Circuit Court of Appeals that the Coast Guard did not perform an adequate environmental evaluation of its 2007 regulation. That regulation would have had a preemptive effect on a Massachusetts law regulating these vessels. In pertinent part, the First Circuit Court of Appeals held that the Coast Guard must complete a more detailed environmental study as part of the regulatory process, if it intended to further regulate tank vessel traffic in Buzzards Bay.

Since the Court of Appeals ruling, the Coast Guard and the Commonwealth of Massachusetts jointly undertook a 2012 risk assessment study of Buzzards Bay. However, the Commonwealth disagreed with the methodology and results of the study. The Commonwealth did not implement its findings.

In 2018, the Coast Guard facilitated a Ports and Waterways Safety Assessment (PAWSA) for Buzzards Bay. The PAWSA identified perceived risks and mitigation measures to reduce navigational risk. The PAWSA participants included representatives from the Commonwealth, several local communities, environmental groups, marine pilots, and towing industry representatives associated with the American Waterways Operators. The Coast Guard will use the PAWSA and all other relevant information to determine the best regulatory scheme to protect Buzzards Bay and accommodate the navigational safety interests of all waterway users. The PAWSA is publicly accessible at https://www.navcen.uscg.gov/?pageName=pawsaFinalReports.

The Coast Guard House Liaison Office at (202) 225-4775 would be pleased to respond to any further questions you or your staff may have. Thank you!

Sincerely,

Taylor C. Kellogg
Lieutenant Commander
U.S. Coast Guard
Congressional and Governmental
Affairs Staff
By Direction